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THE TOMB OF RAMESSES IV AND THE TURIN PLAN OF A ROYAL TOMB

BY HOWARD CARTER AND ALAN H. GARDINER

JUST fifty years have elapsed since Richard Lepsius made known to the learned world a contemporary plan of one of the royal tombs at Thebes, discovered by him among the papyrus treasures of the Turin Museum¹. Even at that time most of the tombs of the Nineteenth and Twentieth Dynasties at Bibân el-Molûk were well known, and the plans of a number of them had been published in the tomes commemorating Napoleon's expedition to Egypt. Searching among these, Lepsius was not long in establishing the fact that the Turin plan recorded the dimensions of the tomb of Rameses IV. That tomb had been visited and measured by Pococke² as early as 1737, and had served Champollion as a lodging, described by him as "princely," on his second visit to Thebes. Nevertheless, no detailed measurements were available when Lepsius wrote his memoir, and such verifications as he was able to make were based on the none too trustworthy authority of the *Description*³. In 1873 Chabas printed an essay in which he corrected and improved upon many of Lepsius' renderings of the hieratic legends on the papyrus⁴, but he too lacked any further evidence as to the dimensions of the original tomb. About the same time, however, appeared a new survey by Mariette⁵, who seems to have planned a new study of the papyrus and of the problems connected with it. Nothing came of this, as of so many other of Mariette's projects; and it was not until 1884 that the subject was again broached by Lepsius, who thus, in one of the last articles he wrote, returned to a theme that had interested him some seventeen years earlier⁶. This was the first, and has remained the sole, attempt to utilize Mariette's measurements. Since then the Turin plan has slumbered in a peaceful oblivion, despite all the interest and labour recently expended on the tombs of Bibân el-Molûk. Nor indeed does it differ in this respect from the vast majority of the papyri in the collection of Turin, that richest

¹ R. LEPSIUS, *Grundplan des Grabes Ramses IV in einem Turiner Papyrus*: extract from *Abhandlungen der königlichen Akademie der Wissenschaften zu Berlin*, 1867.

² POCOCKE, *Description of the East* (1743), vol. i, pp. 97-9, with Pl. XXXI.

³ *Description de l'Égypte: Antiquités*, vol. II, Pl. 79, Figs. 7 and 8.

⁴ FR. CHABAS, *Sur un plan égyptien d'un tombeau royal à Thèbes*, in *Mélanges Égyptologiques*, third series, vol. II, pp. 175-202.

⁵ A. MARIETTE, *Monuments Divers*, Pl. 37; reproduced as Pl. I of Lefébure's complete publication of the tomb, *Les Hypogées royales de Thèbes: troisième division, Tombeau de Ramsès IV*, being vol. XVI of the *Annales du Musée Guimet*, published in 1889.

⁶ R. LEPSIUS, *Über die Masse im Felsengrabe Ramses IV*, in *Zeitschrift für ägyptische Sprache*, vol. XXII (1884), pp. 1-5.

of all repositories of Ramesside documents: it is symptomatic of the vast field which our science covers, and of the fewness of the workers in it, that we have as yet no critical study of the most famous of all Egyptian papyri, the royal canon of kings at Turin.

The present article is the result of collaboration at a distance; and, the manuscript not having been read by Mr Howard Carter, who nevertheless provided much of the materials that went to its composition, our respective responsibility must be explained in some detail. Shortly before Mr Carter's return to Thebes last autumn, it occurred to the writer to propose to him a joint investigation of the problems connected with the Turin plan. The writer had studied the original papyrus, not without profit, some eleven years previously; and particular attention had been paid to the *verso*, which was found to contain other, hitherto barely noticed, dimensions of a royal tomb, whence the question arose whether these were not further details of the tomb of Ramesses IV. Armed with a full translation and a tracing of the papyrus, Mr Carter set to work to control its *data* anew, and an ample budget of measurements and comments arrived from him not long ago, the bulk of which, together with his new plan and section, have been incorporated in the present article. Cooperation at a distance is not the easiest of matters nowadays, and the writer of these pages has been obliged to avail himself more freely than he could have wished of Mr Carter's permission to edit his contribution liberally. It is hoped, however, that in all points where our opinions might differ the individual responsibility of each has been made sufficiently clear.

The first two sections deal with the *recto* and the *verso* of the papyrus and are mainly philological; the final section compares the *data* of the papyrus with those of the original tomb, and states the conclusions that may be drawn.

I. THE *RECTO* OF THE TURIN PLAN (Pl. XXIX).

The Turin papyrus, though of considerable size, is a mere fragment, its present extreme measurements being 86 cm. in length and 24.5 cm. in height. An examination of the plan drawn on the *recto* (the side where the upper fibres are horizontal, or rather, are at right angles to the *selides*) shows that the upper half is intact as far as it goes, but that very little is preserved below the longitudinal axis of the tomb depicted. Nothing is lost to the left, the papyrus having been buried with its end rolled inwards and hence better protected than the beginning against damage by accident or rough handling. The internal testimony of the hieratic legends, as well as comparison with the original tomb, proves that three corridors similar to that marked *W* have completely perished on the right; from this it can be computed that the papyrus may have originally measured about a metre and a half long, by a height of some 45 cm.

Before describing the *verso* and the texts written upon it we shall deal completely with the drawing and the inscriptions on the *recto*, leaving however the questions of measurement involved to be discussed in a later part of this article. Lepsius makes some apt remarks on the execution of the plan, but as they are mixed up with statements of more questionable value it has been thought better to repeat them here than to give a mere reference to the original treatise.

The hillside in which the tomb was cut is symbolized by a brownish surface covered with a multitude of bead-like dots arranged in oblique parallel lines alternately

red and black—a conventional mode of representation recalling our modern device of hatching. The red contour-line bordering the brownish ground roughly follows the outward extension of the tomb-chambers, and at the left, where these end, turns downward parallel to, and at a discreet distance from, the back wall of the innermost room. The same method of depiction may possibly have been retained for the lower portion of the plan, in which case the tomb will have appeared to occupy the centre of an irregular and quite conventionally shaped mountain. A preferable alternative, however, is to suppose that a horizontal base-line running well below the chambers of the plan represented the actual bottom of the mountain, so that the mountain will have been exhibited in elevation, though the tomb excavated in it is shown in ground-plan; we shall have occasion, when speaking of the doors, to point out a similar blending of the two methods of drawing. Another plan of a royal tomb, rightly identified by M. Daressy as the tomb of Ramesses IX, has been discovered on a large fragment of limestone now in the Cairo Museum¹; but in that case no attempt has been made to render the hillside. The best analogy for the convention adopted in the Turin plan is to be found in the hunting scenes of Theban and other tombs, where rolling hillocks of red splashed with deeper red and blue represent the undulating desert; the desert so figured extends only just far enough to offer a foothold to the wild animals rushing over it, and the splashes of colour probably depict pebbles on the surface, or else the heterogeneous granules composing the sand itself².

The general character of the drawing is that of a ground-plan, but the doors are shown in elevation standing on their own ground-line as a base; the Egyptian draughtsman has attempted, as usual, to obtain without perspective all the advantages of a perspective drawing. Lepsius rightly compares the drawings of the palace of Akhenaton at el-Amarna and other similar representations elsewhere³, and draws a parallel between the Egyptian procedure here and the bird's-eye views of towns and buildings in mediaeval manuscripts.

The Egyptian architect aimed at nothing so ambitious as a drawing to scale; for him it sufficed if his chambers were displayed in the correct order and with a rough approximation to the real shape and proportions; all details were left to the hieratic legends. The corridor *Z* in the Turin plan is shown as of much the same size as the corridor *W*, though in reality there was a difference of 11 cubits between the respective lengths of the two. The disproportion is yet more glaring in the case of the niche *W*, *d* and the side-chamber *Z*, *d*: in the drawing these are nearly equal in size, but the inscriptions state that *Z*, *d* measured 10 cubits in depth, while *W*, *d* measured no more than a single cubit and 2 palms⁴.

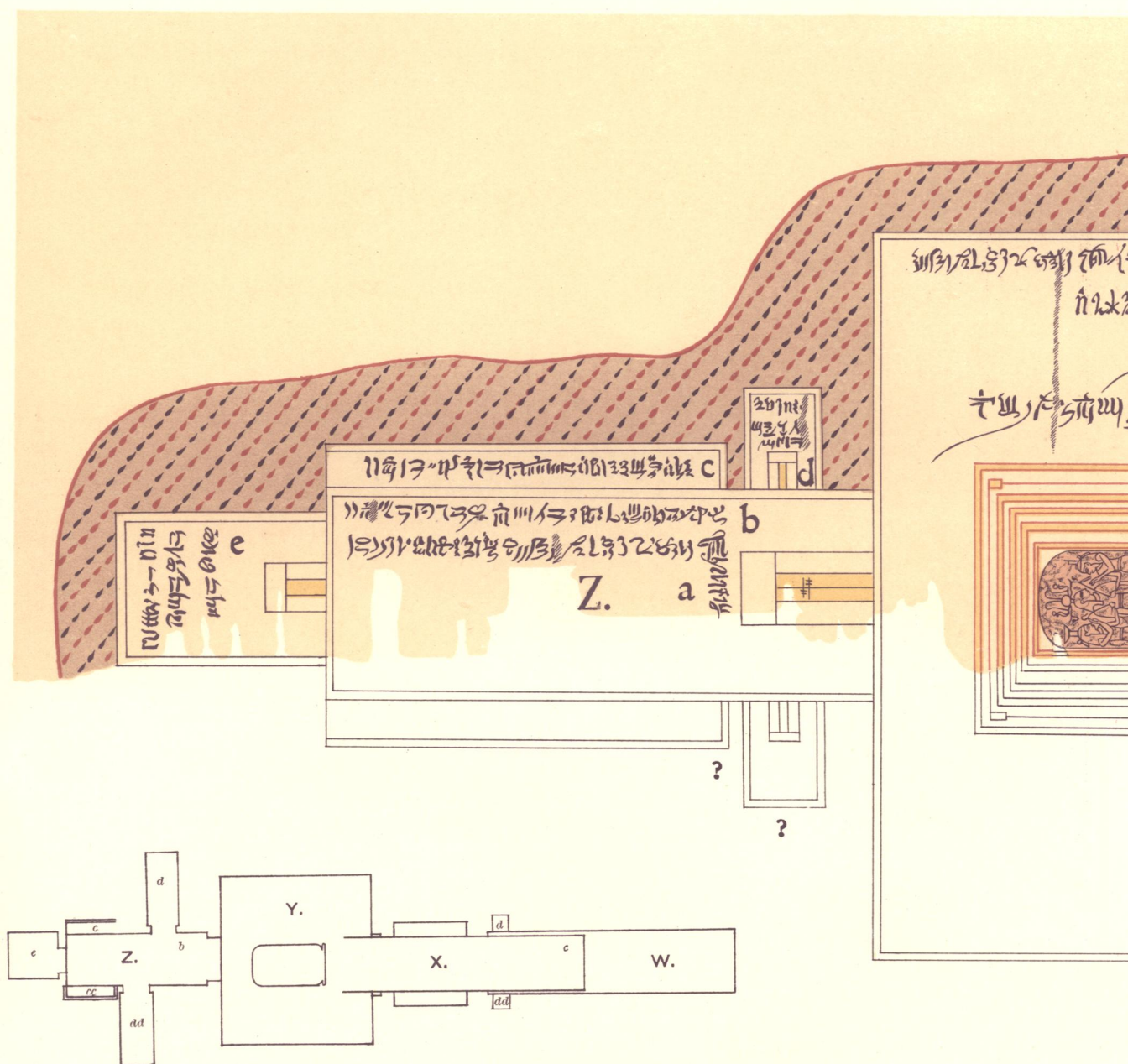
The thicknesses of the doorways are not shown in the papyrus; probably the elevations were deemed to be sufficient. This omission is even more striking in the case of the

¹ See DARESSY, *Ostraca*, Pl. XXXII, no. 25, 184. The inscriptions are for the most part illegible in the photograph, but are given in transcription by M. Daressy in his article *Un plan égyptien d'une tombe royale*, published in *Revue Archéologique*, Third Series, vol. xxxii (1898), pp. 235–40.

² See for example DAVIES-GARDINER, *Tomb of Amenemhêt*, Pl. IX and p. 31.

³ See ERMAN, *Agypten*, pp. 254–5; WRESZINSKI, *Atlas zur altägyptischen Kulturgeschichte*, nos. 3, 73, 74, 75.

⁴ Lepsius, however, explains (p. 15) the drawings of *W*, *d* and *Z*, *d* as frontal elevations. This seems exceedingly unlikely in the case of *Z*, *d*, where a door is represented in the normal way. In the case of *W*, *d*, however, the relation of height to breadth does agree singularly well with this hypothesis.



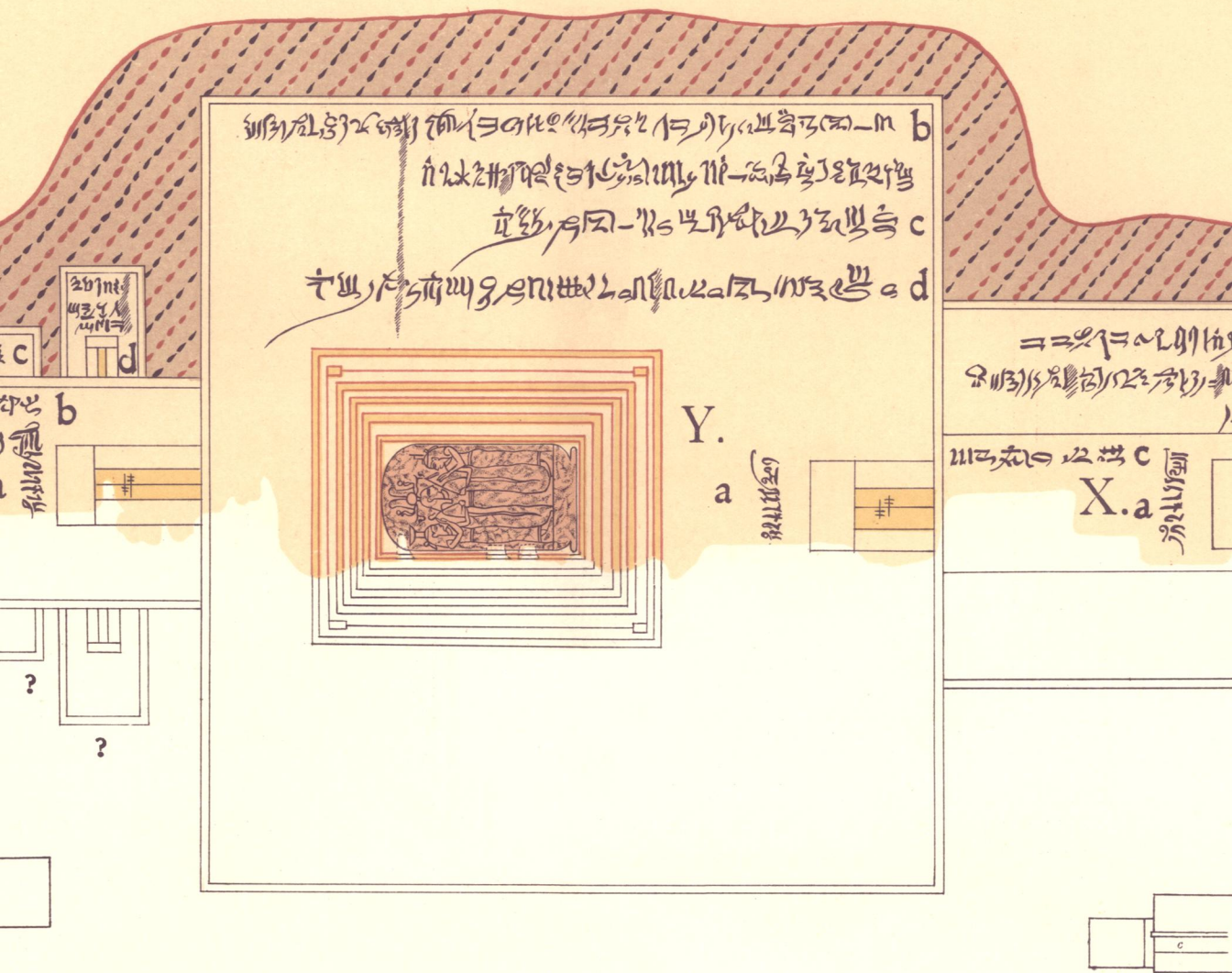
PORTION OF MR. CARTER'S PLAN ILLUSTRATING THE PAPYRUS.

PLAN OF THE TOMB OF RA

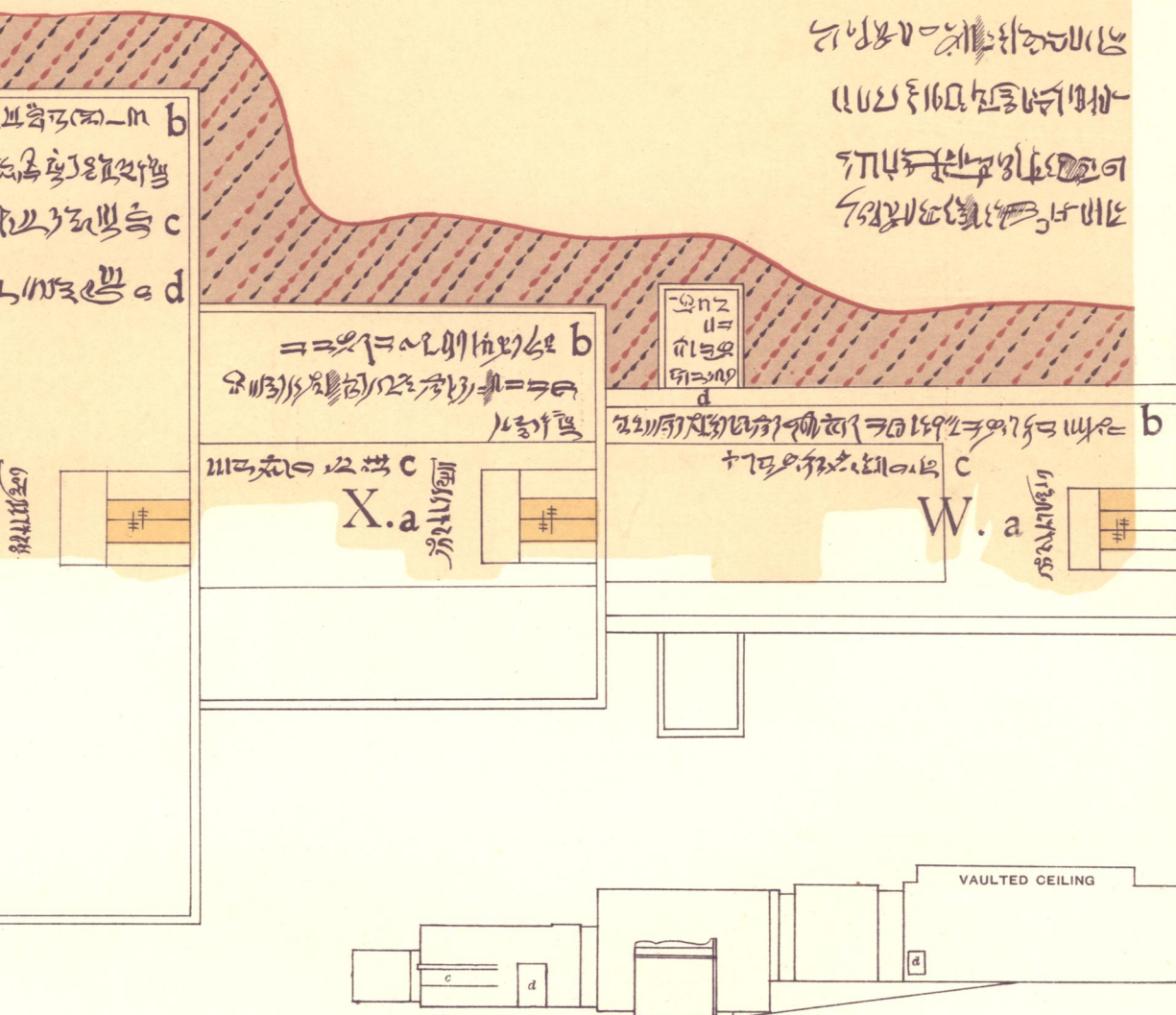
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WITH REST



PLAN OF THE TOMB OF RAMESSES IV., FROM A PAPYRUS IN TURIN.



PORTION OF MR. CARTER'S SECTION ILLUSTRATING THE PAPYRUS.

A PAPYRUS IN TURIN.

Cairo plan, for one or two of the doorways in the tomb of Ramesses IX, which it represents, are so extensive as to be almost equivalent to short passages.


Alike in the Turin and in the Cairo plans the walls of the various chambers are indicated by parallel lines a short distance apart. One would have expected a single line, but the double line is easily explicable. the draughtsman has allowed himself to be influenced by the way in which he ordinarily represented the walls of buildings; in these, of course, the space between the two lines corresponded to the wall-thickness.

One detail of the Turin plan did not find its explanation until Mariette published his improved survey of the tomb of Ramesses IV. From the middle of corridor *W* inner lines are shown which continue through *X* down to the Sarcophagus Chamber. Lepsius points out in his second essay on the papyrus¹ that by these is meant the sarcophagus-slide, which starts, as Mr Carter's section (Pl. XXX) shows, near the middle of *W*.

All the doors are painted yellow, both in the Turin and in the Cairo plans. Doubtless the doors so painted were of wood; they are all double and fastened by means of bolts, with the exception of the doors to *Z*, *d* and *Z*, *e*. In the midst of room *Y* is shown the sarcophagus; this is shaped in the form of a cartouche and painted reddish-brown dappled with black in order to imitate red granite. The actual sarcophagus is still in the tomb and is of rose granite; the lid bears upon it the figure of the king between Isis and Nephthys, as depicted in the papyrus². Around the sarcophagus the papyrus shows six yellow rectangles, one within the other. Lepsius fancied that these might be intended for steps; "but at Bab-el-Meluk," he says, "no such raising up of a sarcophagus on steps has come to my notice." The view that the yellow rectangles represent steps is not at all improbable, but one must imagine them as temporary, constructed in all likelihood for the sole purpose of getting at the sarcophagus on the day of the king's burial; and their yellow colour points to their having been of wood. Mr Gunn, to whom this suggestion is due, points out that the sarcophagus without its lid was nearly eight feet high; the mummy could not have been lowered into its place, nor, very possibly, could the final rites have been performed, without the existence of some temporary contrivance of the kind. The outermost rectangle but one differs from the rest in consisting only of yellow corner-blocks, interconnected by red lines; might not these corner-blocks represent the bases for poles supporting a funeral canopy³?

We must now turn to the hieratic legends describing the different parts of the tomb as shown in the papyrus; Lepsius' lettering both of the chambers and of the individual inscriptions within them has been retained.

¹ *Zeitschrift für ägyptische Sprache*, vol. xxii (1884), p. 2.

² According to the copy published by LÉFEBURE, *op. cit.*, Pl. XXXII, the goddesses have changed places with one another, and in the original they stand on -signs; Mr Carter notes that the recumbent figure of the king is in the round, while the goddesses are incised only. The workmanship of the sarcophagus is bold but not highly finished. The total height, including the figure of the king on the lid, is 3.32 m.; height of sarcophagus alone, 2.54 m.; thickness of lid, 0.41 m.; length, 3.55 m.; width, 2.05 m.

³ Compare the canopy from the royal *cache* of Dêr el-Bahri published by E. BRUGSCH, *La Tente funéraire de la Princesse Isimkheb*, Cairo, 1889. See too DAVIES-GARDINER, *Tomb of Amenemhêt*, Pl. XXIV; BUDGE, *Book of the Dead: Papyrus of Ani*, 1913, vol. I, Pl. 34.

FOURTH CORRIDOR, marked *W* in the plan.

W, a, referring to the door: "Its door is fastened." This explanation is appended to the four double doors of *W*, *X*, *Y*, and *Z* respectively, once only (*Z, a*) with a slight difference of spelling; it is lacking from the single doors of *Z, d* and *Z, e*. What is meant is not quite clear. If the papyrus is a copy of the report made on the completion of the tomb or, what is less probable, the report of its condition when finally closed up, *smn* might be interpreted "has been affixed" or "has been made fast" i.e. bolted; another possibility, however, is that *smn* is used pregnantly "is fastened" i.e. is capable of being fastened with a bolt¹. To add to our doubts, the ordinary passive *smn-tw* might be expected, unless perchance *smn* is here intransitively used. Lastly, the pronominal suffix is none too clear: we shall see later that the doorways were reckoned, at least as far as the Sarcophagus Chamber, to the room at the inner end of which they stood²; the door *W, a* would on this view belong to "the Third Corridor" (*V*), the door *X, a* to "the Fourth Corridor" (*W*), and the door *Y, a* to "the Hall of Waiting" (*t3 wsh̄t isk̄, X*); *Y, a* would then presumably have to be restored *smn sb̄[s]* not *smn sb̄[f]*. It should be noted that *sb̄* appears to mean the actual wooden door; for the entire doorway the technical term seems to have been *hy(t)*³ or *wmt*⁴.

W, b, along the entire length of the corridor above the door: "The Fourth [Corridor], of 25 cubits; breadth, of 6 cubits; height, of 9 cubits and 4 palms; being drawn with outlines, graven with the chisel, filled with colours, and completed."

The restoration is rendered certain by *p3 st3-ntr* in *Y, c* below, and by various other passages both on the *recto* and on the *verso*; *st3-ntr* has sometimes the determinative , sometimes is without a determinative. In almost every case *st3-ntr* "the passage of the god" can be appropriately translated "corridor"; apart from our papyrus this term is found (e.g.) in the Cairo plan, see above p. 132, footnote 1, in a *graffito* from the tomb of Ramesses IX (GUILMANT, *Le Tombeau de Ramsès IX*, pl. LXIV), and on the *Cairo Ostrakon* 25,269⁵, of which a translation is given here, as it throws light on other terms used in connection with royal tombs:—"Year 4, third month of inundation, day 18, distribution (lit. giving) of charcoal () at the end of the first corridor of the job (). On this day, in its doorway ()⁷;

¹ Lepsius (p. 4) has felt the ambiguity of this phrase, but he is certainly mistaken in regarding *sb̄* as here meaning "a lock"; he wrongly reads *smn sb̄-w*, which he translates "Einrichtung eines Verschlusses."

² See below footnote 6.

³ See below footnote 6.

⁴ See GARDINER, *Notes on the Story of Sinuhe*, p. 95.

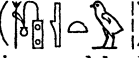

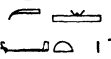

⁵ Lepsius and Chabas read wrongly 35.

⁶ See DARESSY, *Ostraka*, Pl. LV.

⁷ There are two points of interest here: (1) the doorway at the end of the First Corridor is considered to belong to it, as we have seen was the case in the Turin plan; (2) the word *hy(t)* hence obtains new

they were stopped (?) in it (this perhaps means that they were stopped in the First Corridor through lack of charcoal for their lamps). (Then) they penetrated into the next corridor, (namely) the second one" (𓂏𓂐𓂑𓂒𓂓𓂔𓂕𓂖𓂗𓂘𓂙𓂚𓂛𓂜𓂝𓂞𓂟𓂠𓂡𓂢𓂣𓂤𓂥𓂦𓂧𓂨𓂩𓂪𓂫𓂬𓂭𓂮𓂯𓂰𓂱𓂲𓂳𓂴𓂵𓂶𓂷𓂸𓂹𓂺𓂻𓂼𓂽𓂾𓂿𓃀𓃁𓃂𓃃𓃄𓃅𓃆𓃇𓃈𓃉𓃊𓃋𓃌𓃍𓃎𓃏𓃐𓃑𓃒𓃓𓃔𓃕𓃖𓃗𓃘𓃙𓃚𓃛𓃜𓃝𓃞𓃟𓃠𓃡𓃢𓃣𓃤𓃥𓃦𓃧𓃨𓃩𓃪𓃫𓃬𓃭𓃮𓃯𓃰𓃱𓃲𓃳𓃴𓃵𓃶𓃷𓃸𓃹𓃺𓃻𓃼𓃽𓃾𓃿𓄀𓄁𓄂𓄃𓄄𓄅𓄆𓄇𓄈𓄉𓄊𓄋𓄌𓄍𓄎𓄏𓄐𓄑𓄒𓄓𓄔𓄕𓄖𓄗𓄘𓄙𓄚𓄛𓄜𓄝𓄞𓄟𓄠𓄡𓄢𓄣𓄤𓄥𓄦𓄧𓄨𓄩𓄪𓄫𓄬𓄭𓄮𓄯𓄰𓄱𓄲𓄳𓄴𓄵𓄶𓄷𓄸𓄹𓄺𓄻𓄼𓄽𓄾𓄿𓅀𓅁𓅂𓅃𓅄𓅅𓅆𓅇𓅈𓅉𓅊𓅋𓅌𓅍𓅎𓅏𓅐𓅑𓅒𓅓𓅔𓅕𓅖𓅗𓅘𓅙𓅚𓅛𓅜𓅝𓅞𓅟𓅠𓅡𓅢𓅣𓅤𓅥𓅦𓅧𓅨𓅩𓅪𓅫𓅬𓅭𓅮𓅯𓅰𓅱𓅲𓅳𓅴𓅵𓅶𓅷𓅸𓅹𓅺𓅻𓅼𓅽𓅾𓅿𓆀𓆁𓆂𓆃𓆄𓆅𓆆𓆇𓆈𓆉𓆊𓆋𓆌𓆍𓆎𓆏𓆐𓆑𓆒𓆓𓆔𓆕𓆖𓆗𓆘𓆙𓆚𓆛𓆜𓆝𓆞𓆟𓆠𓆡𓆢𓆣𓆤𓆥𓆦𓆧𓆨𓆩𓆪𓆫𓆬𓆭𓆮𓆯𓆰𓆱𓆲𓆳𓆴𓆵𓆶𓆷𓆸𓆹𓆺𓆻𓆼𓆽𓆾𓆿𓇀𓇁𓇂𓇃𓇄𓇅𓇆𓇇𓇈𓇉𓇊𓇋𓇌𓇍𓇎𓇏𓇐𓇑𓇒𓇓𓇔𓇕𓇖𓇗𓇘𓇙𓇚𓇛𓇜𓇝𓇞𓇟𓇠𓇡𓇢𓇣𓇤𓇥𓇦𓇧𓇨𓇩𓇪𓇫𓇬𓇭𓇮𓇯𓇰𓇱𓇲𓇳𓇴𓇵𓇶𓇷𓇸𓇹𓇺𓇻𓇼𓇽𓇾𓇿𓈀𓈁𓈂𓈃𓈄𓈅𓈆𓈇𓈈𓈉𓈊𓈋𓈌𓈍𓈎𓈏𓈐𓈑𓈒𓈓𓈔𓈕𓈖𓈗𓈘𓈙𓈚𓈛𓈜𓈝𓈞𓈟𓈠𓈡𓈢𓈣𓈤𓈥𓈦𓈧𓈨𓈩𓈪𓈫𓈬𓈭𓈮𓈯𓈰𓈱𓈲𓈳𓈴𓈵𓈶𓈷𓈸𓈹𓈺𓈻𓈼𓈽𓈾𓈿𓉀𓉁𓉂𓉃𓉄𓉅𓉆𓉇𓉈𓉉𓉊𓉋𓉌𓉍𓉎𓉏𓉐𓉑𓉒𓉓𓉔𓉕𓉖𓉗𓉘𓉙𓉚𓉛𓉜𓉝𓉞𓉟𓉠𓉡𓉢𓉣𓉤𓉥𓉦𓉧𓉨𓉩𓉪𓉫𓉬𓉭𓉮𓉯𓉰𓉱𓉲𓉳𓉴𓉵𓉶𓉷𓉸𓉹𓉺𓉻𓉼𓉽𓉾𓉿𓊀𓊁𓊂𓊃𓊄𓊅𓊆𓊇𓊈𓊉𓊊𓊋𓊌𓊍𓊎𓊏𓊐𓊑𓊒𓊓𓊔𓊕𓊖𓊗𓊘𓊙𓊚𓊛𓊜𓊝𓊞𓊟𓊠𓊡𓊢𓊣𓊤𓊥𓊦𓊧𓊨𓊩𓊪𓊫𓊬𓊭𓊮𓊯𓊰𓊱𓊲𓊳𓊴𓊵𓊶𓊷𓊸𓊹𓊺𓊻𓊼𓊽𓊾𓊿𓋀𓋁𓋂𓋃𓋄𓋅𓋆𓋇𓋈𓋉𓋊𓋋𓋌𓋍𓋎𓋏𓋐𓋑𓋒𓋓𓋔𓋕𓋖𓋗𓋘𓋙𓋚𓋛𓋜𓋝𓋞𓋟𓋠𓋡𓋢𓋣𓋤𓋥𓋦𓋧𓋨𓋩𓋪𓋫𓋬𓋭𓋮𓋯𓋰𓋱𓋲𓋳𓋴𓋵𓋶𓋷𓋸𓋹𓋺𓋻𓋼𓋽𓋾𓋿𓌀𓌁𓌂𓌃𓌄𓌅𓌆𓌇𓌈𓌉𓌊𓌋𓌌𓌍𓌎𓌏𓌐𓌑𓌒𓌓𓌔𓌕𓌖𓌗𓌘𓌙𓌚𓌛𓌜𓌝𓌞𓌟𓌠𓌡𓌢𓌣𓌤𓌥𓌦𓌧𓌨𓌩𓌪𓌫𓌬𓌭𓌮𓌯𓌰𓌱𓌲𓌳𓌴𓌵𓌶𓌷𓌸𓌹𓌺𓌻𓌼𓌽𓌾𓌿𓍀𓍁𓍂𓍃𓍄𓍅𓍆𓍇𓍈𓍉𓍊𓍋𓍌𓍍𓍎𓍏𓍐𓍑𓍒𓍓𓍔𓍕𓍖𓍗𓍘𓍙𓍚𓍛𓍜𓍝𓍞𓍟𓍠𓍡𓍢𓍣𓍤𓍥𓍦𓍧𓍨𓍩𓍪𓍫𓍬𓍭𓍮𓍯𓍰𓍱𓍲𓍳𓍴𓍵𓍶𓍷𓍸𓍹𓍺𓍻𓍼𓍽𓍾𓍿𓎀𓎁𓎂𓎃𓎄𓎅𓎆𓎇𓎈𓎉𓎊𓎋𓎌𓎍𓎎𓎏𓎐𓎑𓎒𓎓𓎔𓎕𓎖𓎗𓎘𓎙𓎚𓎛𓎜𓎝𓎞𓎟𓎠𓎡𓎢𓎣𓎤𓎥𓎦𓎧𓎨𓎩𓎪𓎫𓎬𓎭𓎮𓎯𓎰𓎱𓎲𓎳𓎴𓎵𓎶𓎷𓎸𓎹𓎺𓎻𓎼𓎽𓎾𓎿𓏀𓏁𓏂𓏃𓏄𓏅𓏆𓏇𓏈𓏉𓏊𓏋𓏌𓏍𓏎𓏏𓏐𓏑𓏒𓏓𓏔𓏕𓏖𓏗𓏘𓏙𓏚𓏛𓏜𓏝𓏞𓏟𓏠𓏡𓏢𓏣𓏤𓏥𓏦𓏧𓏨𓏩𓏪𓏫𓏬𓏭𓏮𓏯𓏰𓏱𓏲𓏳𓏴𓏵𓏶𓏷𓏸𓏹𓏺𓏻𓏼𓏽𓏾𓏿𓐀𓐁𓐂𓐃𓐄𓐅𓐆𓐇𓐈𓐉𓐊𓐋𓐌𓐍𓐎𓐏𓐐𓐑𓐒𓐓𓐔𓐕𓐖𓐗𓐘𓐙𓐚𓐛𓐜𓐝𓐞𓐟𓐠𓐡𓐢𓐣𓐤𓐥𓐦𓐧𓐨𓐩𓐪𓐫𓐬𓐭𓐮𓐯𓐰𓐱𓐲𓐳𓐴𓐵𓐶𓐷𓐸𓐹𓐺𓐻𓐼𓐽𓐾𓐿𓑀𓑁𓑂𓑃𓑄𓑅𓑆𓑇𓑈𓑉𓑊𓑋𓑌𓑍𓑎𓑏𓑐𓑑𓑒𓑓𓑔𓑕𓑖𓑗𓑘𓑙𓑚𓑛𓑜𓑝𓑞𓑟𓑠𓑡𓑢𓑣𓑤𓑥𓑦𓑧𓑨𓑩𓑪𓑫𓑬𓑭𓑮𓑯𓑰𓑱𓑲𓑳𓑴𓑵𓑶𓑷𓑸𓑹𓑺𓑻𓑼𓑽𓑾𓑿𓒀𓒁𓒂𓒃𓒄𓒅𓒆𓒇𓒈𓒉𓒊𓒋𓒌𓒍𓒎𓒏𓒐𓒑𓒒𓒓𓒔𓒕𓒖𓒗𓒘𓒙𓒚𓒛𓒜𓒝𓒞𓒟𓒠𓒡𓒢𓒣𓒤𓒥𓒦𓒧𓒨𓒩𓒪𓒫𓒬𓒭𓒮𓒯𓒰𓒱𓒲𓒳𓒴𓒵𓒶𓒷𓒸𓒹𓒺𓒻𓒼𓒽𓒾𓒿𓓀𓓁𓓂𓓃𓓄𓓅𓓆𓓇𓓈𓓉𓓊𓓋𓓌𓓍𓓎𓓏𓓐𓓑𓓒𓓓𓓔𓓕𓓖𓓗𓓘𓓙𓓚𓓛𓓜𓓝𓓞𓓟𓓠𓓡𓓢𓓣𓓤𓓥𓓦𓓧𓓨𓓩𓓪𓓫𓓬𓓭𓓮𓓯𓓰𓓱𓓲𓓳𓓴𓓵𓓶𓓷𓓸𓓹𓓺𓓻𓓼𓓽𓓾𓓿𓔀𓔁𓔂𓔃𓔄𓔅𓔆𓔇𓔈𓔉𓔊𓔋𓔌𓔍𓔎𓔏𓔐𓔑𓔒𓔓𓔔𓔕𓔖𓔗𓔘𓔙𓔚𓔛𓔜𓔝𓔞𓔟𓔠𓔡𓔢𓔣𓔤𓔥𓔦𓔧𓔨𓔩𓔪𓔫𓔬𓔭𓔮𓔯𓔰𓔱𓔲𓔳𓔴𓔵𓔶𓔷𓔸𓔹𓔺𓔻𓔼𓔽𓔾𓔿𓕀𓕁𓕂𓕃𓕄𓕅𓕆𓕇𓕈𓕉𓕊𓕋𓕌𓕍𓕎𓕏𓕐𓕑𓕒𓕓𓕔𓕕𓕖𓕗𓕘𓕙𓕚𓕛𓕜𓕝𓕞𓕟𓕠𓕡𓕢𓕣𓕤𓕥𓕦𓕧𓕨𓕩𓕪𓕫𓕬𓕭𓕮𓕯𓕰𓕱𓕲𓕳𓕴𓕵𓕶𓕷𓕸𓕹𓕺𓕻𓕼𓕽𓕾𓕿𓖀𓖁𓖂𓖃𓖄𓖅𓖆𓖇𓖈𓖉𓖊𓖋𓖌𓖍𓖎𓖏𓖐𓖑𓖒𓖓𓖔𓖕𓖖𓖗𓖘𓖙𓖚𓖛𓖜𓖝𓖞𓖟𓖠𓖡𓖢𓖣𓖤𓖥𓖦𓖧𓖨𓖩𓖪𓖫𓖬𓖭𓖮𓖯𓖰𓖱𓖲𓖳𓖴𓖵𓖶𓖷𓖸𓖹𓖺𓖻𓖼𓖽𓖾𓖿𓗀𓗁𓗂𓗃𓗄𓗅𓗆𓗇𓗈𓗉𓗊𓗋𓗌𓗍𓗎𓗏𓗐𓗑𓗒𓗓𓗔𓗕𓗖𓗗𓗘𓗙𓗚𓗛𓗜𓗝𓗞𓗟𓗠𓗡𓗢𓗣𓗤𓗥𓗦𓗧𓗨𓗩𓗪𓗫𓗬𓗭𓗮𓗯𓗰𓗱𓗲𓗳𓗴𓗵𓗶𓗷𓗸𓗹𓗺𓗻𓗼𓗽𓗾𓗿𓘀𓘁𓘂𓘃𓘄𓘅𓘆𓘇𓘈𓘉𓘊𓘋𓘌𓘍𓘎𓘏𓘐𓘑𓘒𓘓𓘔𓘕𓘖𓘗𓘘𓘙𓘚𓘛𓘜𓘝𓘞𓘟𓘠𓘡𓘢𓘣𓘤𓘥𓘦𓘧𓘨𓘩𓘪𓘫𓘬𓘭𓘮𓘯𓘰𓘱𓘲𓘳𓘴𓘵𓘶𓘷𓘸𓘹𓘺𓘻𓘼𓘽𓘾𓘿𓙀𓙁𓙂𓙃𓙄𓙅𓙆𓙇𓙈𓙉𓙊𓙋𓙌𓙍𓙎𓙏𓙐𓙑𓙒𓙓𓙔𓙕𓙖𓙗𓙘𓙙𓙚𓙛𓙜𓙝𓙞𓙟𓙠𓙡𓙢𓙣𓙤𓙥𓙦𓙧𓙨𓙩𓙪𓙫𓙬𓙭𓙮𓙯𓙰𓙱𓙲𓙳𓙴𓙵𓙶𓙷𓙸𓙹𓙺𓙻𓙼𓙽𓙾𓙿𓚀𓚁𓚂𓚃𓚄𓚅𓚆𓚇𓚈𓚉𓚊𓚋𓚌𓚍𓚎𓚏𓚐𓚑𓚒𓚓𓚔𓚕𓚖𓚗𓚘𓚙𓚚𓚛𓚜𓚝𓚞𓚟𓚠𓚡𓚢𓚣𓚤𓚥𓚦𓚧𓚨𓚩𓚪𓚫𓚬𓚭𓚮𓚯𓚰𓚱𓚲𓚳𓚴𓚵𓚶𓚷𓚸𓚹𓚺𓚻𓚼𓚽𓚾𓚿𓛀𓛁𓛂𓛃𓛄𓛅𓛆𓛇𓛈𓛉𓛊𓛋𓛌𓛍𓛎𓛏𓛐𓛑𓛒𓛓𓛔𓛕𓛖𓛗𓛘𓛙𓛚𓛛𓛜𓛝𓛞𓛟𓛠𓛡𓛢𓛣𓛤𓛥𓛦𓛧𓛨𓛩𓛪𓛫𓛬𓛭𓛮𓛯𓛰𓛱𓛲𓛳𓛴𓛵𓛶𓛷𓛸𓛹𓛺𓛻𓛼𓛽𓛾𓛿𓜀𓜁𓜂𓜃𓜄𓜅𓜆𓜇𓜈𓜉𓜊𓜋𓜌𓜍𓜎𓜏𓜐𓜑𓜒𓜓𓜔𓜕𓜖𓜗𓜘𓜙𓜚𓜛𓜜𓜝𓜞𓜟𓜠𓜡𓜢𓜣𓜤𓜥𓜦𓜧𓜨𓜩𓜪𓜫𓜬𓜭𓜮𓜯𓜰𓜱𓜲𓜳𓜴𓜵𓜶𓜷𓜸𓜹𓜺𓜻𓜼𓜽𓜾𓜿𓝀𓝁𓝂𓝃𓝄𓝅𓝆𓝇𓝈𓝉𓝊𓝋𓝌𓝍𓝎𓝏𓝐𓝑𓝒𓝓𓝔𓝕𓝖𓝗𓝘𓝙𓝚𓝛𓝜𓝝𓝞𓝟𓝠𓝡𓝢𓝣𓝤𓝥𓝦𓝧𓝨𓝩𓝪𓝫𓝬𓝭𓝮𓝯𓝰𓝱𓝲𓝳𓝴𓝵𓝶𓝷𓝸𓝹𓝺𓝻𓝼𓝽𓝾𓝿𓞀𓞁𓞂𓞃𓞄𓞅𓞆𓞇𓞈𓞉𓞊𓞋𓞌𓞍𓞎𓞏𓞐𓞑𓞒𓞓𓞔𓞕𓞖𓞗𓞘𓞙𓞚𓞛𓞜𓞝𓞞𓞟𓞠𓞡𓞢𓞣𓞤𓞥𓞦𓞧𓞨𓞩𓞪𓞫𓞬𓞭𓞮𓞯𓞰𓞱𓞲𓞳𓞴𓞵𓞶𓞷𓞸𓞹𓞺𓞻𓞼𓞽𓞾𓞿𓟀𓟁𓟂𓟃𓟄𓟅𓟆𓟇𓟈𓟉𓟊𓟋𓟌𓟍𓟎𓟏𓟐𓟑𓟒𓟓𓟔𓟕𓟖𓟗𓟘𓟙𓟚𓟛𓟜𓟝𓟞𓟟𓟠𓟡𓟢𓟣𓟤𓟥𓟦𓟧𓟨𓟩𓟪𓟫𓟬𓟭𓟮𓟯𓟰𓟱𓟲𓟳𓟴𓟵𓟶𓟷𓟸𓟹𓟺𓟻𓟼𓟽𓟾𓟿𓠀𓠁𓠂𓠃𓠄𓠅𓠆𓠇𓠈𓠉𓠊𓠋𓠌𓠍𓠎𓠏𓠐𓠑𓠒𓠓𓠔𓠕𓠖𓠗𓠘𓠙𓠚𓠛𓠜𓠝𓠞𓠟𓠠𓠡𓠢𓠣𓠤𓠥𓠦𓠧𓠨𓠩𓠪𓠫𓠬𓠭𓠮𓠯𓠰𓠱𓠲𓠳𓠴𓠵𓠶𓠷𓠸𓠹𓠺𓠻𓠼𓠽𓠾𓠿𓡀𓡁𓡂𓡃𓡄𓡅𓡆𓡇𓡈𓡉𓡊𓡋𓡌𓡍𓡎𓡏𓡐𓡑𓡒𓡓𓡔𓡕𓡖𓡗𓡘𓡙𓡚𓡛𓡜𓡝𓡞𓡟𓡠𓡡𓡢𓡣𓡤𓡥𓡦𓡧𓡨𓡩𓡪𓡫𓡬𓡭𓡮𓡯𓡰𓡱𓡲𓡳𓡴𓡵𓡶𓡷𓡸𓡹𓡺𓡻𓡼𓡽𓡾𓡿𓢀𓢁𓢂𓢃𓢄𓢅𓢆𓢇𓢈𓢉𓢊𓢋𓢌𓢍𓢎𓢏𓢐𓢑𓢒𓢓𓢔𓢕𓢖𓢗𓢘𓢙𓢚𓢛𓢜𓢝𓢞𓢟𓢠𓢡𓢢𓢣𓢤𓢥𓢦𓢧𓢨𓢩𓢪𓢫𓢬𓢭𓢮𓢯𓢰𓢱𓢲𓢳𓢴𓢵𓢶𓢷𓢸𓢹𓢺𓢻𓢼𓢽𓢾𓢿𓣀𓣁𓣂𓣃𓣄𓣅𓣆𓣇𓣈𓣉𓣊𓣋𓣌𓣍𓣎𓣏𓣐𓣑𓣒𓣓𓣔𓣕𓣖𓣗𓣘𓣙𓣚𓣛𓣜𓣝𓣞𓣟𓣠𓣡𓣢𓣣𓣤𓣥𓣦𓣧𓣨𓣩𓣪𓣫𓣬𓣭𓣮𓣯𓣰𓣱𓣲𓣳𓣴𓣵𓣶𓣷𓣸𓣹𓣺𓣻𓣼𓣽𓣾𓣿𓤀𓤁𓤂𓤃𓤄𓤅𓤆𓤇𓤈𓤉𓤊𓤋𓤌𓤍𓤎𓤏𓤐𓤑𓤒𓤓𓤔𓤕𓤖𓤗𓤘𓤙𓤚𓤛𓤜𓤝𓤞𓤟𓤠𓤡𓤢𓤣𓤤𓤥𓤦𓤧𓤨𓤩𓤪𓤫𓤬𓤭𓤮𓤯𓤰𓤱𓤲𓤳𓤴𓤵𓤶𓤷𓤸𓤹𓤺𓤻𓤼𓤽𓤾𓤿𓥀𓥁𓥂𓥃𓥄𓥅𓥆𓥇𓥈𓥉𓥊𓥋𓥌𓥍𓥎𓥏𓥐𓥑𓥒𓥓𓥔𓥕𓥖𓥗𓥘𓥙𓥚𓥛𓥜𓥝𓥞𓥟𓥠𓥡𓥢𓥣𓥤𓥥𓥦𓥧𓥨𓥩𓥪𓥫𓥬𓥭𓥮𓥯𓥰𓥱𓥲𓥳𓥴𓥵𓥶𓥷𓥸𓥹𓥺𓥻𓥼𓥽𓥾𓥿𓦀𓦁𓦂𓦃𓦄𓦅𓦆𓦇𓦈𓦉𓦊𓦋𓦌𓦍𓦎𓦏𓦐𓦑𓦒𓦓𓦔𓦕𓦖𓦗𓦘𓦙𓦚𓦛𓦜𓦝𓦞𓦟𓦠𓦡𓦢𓦣𓦤𓦥𓦦𓦧𓦨𓦩𓦪𓦫𓦬𓦭𓦮𓦯𓦰𓦱𓦲𓦳𓦴𓦵𓦶𓦷𓦸𓦹𓦺𓦻𓦼𓦽𓦾𓦿𓧀𓧁𓧂𓧃𓧄𓧅𓧆𓧇𓧈𓧉𓧊𓧋𓧌𓧍𓧎𓧏𓧐𓧑𓧒𓧓𓧔𓧕𓧖𓧗𓧘𓧙𓧚𓧛𓧜𓧝𓧞𓧟𓧠𓧡𓧢𓧣𓧤𓧥𓧦𓧧𓧨𓧩𓧪𓧫𓧬𓧭𓧮𓧯𓧰𓧱𓧲𓧳𓧴𓧵𓧶𓧷𓧸𓧹𓧺𓧻𓧼𓧽𓧾𓧿𓨀𓨁𓨂𓨃𓨄𓨅𓨆𓨇𓨈𓨉𓨊𓨋𓨌𓨍𓨎𓨏𓨐𓨑𓨒𓨓𓨔𓨕𓨖𓨗𓨘𓨙𓨚𓨛𓨜𓨝𓨞𓨟𓨠𓨡𓨢𓨣𓨤𓨥𓨦𓨧𓨨𓨩𓨪𓨫𓨬𓨭𓨮𓨯𓨰𓨱𓨲𓨳𓨴𓨵𓨶𓨷𓨸𓨹𓨺𓨻𓨼𓨽𓨾𓨿𓩀𓩁𓩂𓩃𓩄𓩅𓩆𓩇𓩈𓩉𓩊𓩋𓩌𓩍𓩎𓩏𓩐𓩑𓩒𓩓𓩔𓩕𓩖𓩗𓩘𓩙𓩚𓩛𓩜𓩝𓩞𓩟𓩠𓩡𓩢𓩣𓩤𓩥𓩦𓩧𓩨𓩩𓩪𓩫𓩬𓩭𓩮𓩯𓩰𓩱𓩲𓩳𓩴𓩵𓩶𓩷𓩸𓩹𓩺𓩻𓩼𓩽𓩾𓩿𓪀𓪁𓪂𓪃𓪄𓪅𓪆𓪇𓪈𓪉𓪊𓪋𓪌𓪍𓪎𓪏𓪐𓪑𓪒𓪓𓪔𓪕𓪖𓪗𓪘𓪙𓪚𓪛𓪜𓪝𓪞𓪟𓪠𓪡𓪢𓪣𓪤𓪥𓪦𓪧𓪨𓪩𓪪𓪫𓪬𓪭𓪮𓪯𓪰𓪱𓪲𓪳𓪴𓪵𓪶𓪷𓪸𓪹𓪺𓪻𓪼𓪽𓪾𓪿𓫀𓫁𓫂𓫃𓫄𓫅𓫆𓫇𓫈𓫉𓫊𓫋𓫌𓫍𓫎𓫏𓫐𓫑𓫒𓫓𓫔𓫕𓫖𓫗𓫘𓫙𓫚𓫛𓫜𓫝𓫞𓫟𓫠𓫡𓫢𓫣𓫤𓫥𓫦𓫧𓫨𓫩𓫪𓫫𓫬𓫭𓫮𓫯𓫰𓫱𓫲𓫳𓫴𓫵𓫶𓫷𓫸𓫹𓫺𓫻𓫼𓫽𓫾𓫿𓬀𓬁𓬂𓬃𓬄𓬅𓬆𓬇𓬈𓬉𓬊𓬋𓬌𓬍𓬎𓬏𓬐𓬑𓬒𓬓𓬔𓬕𓬖𓬗𓬘𓬙𓬚𓬛𓬜𓬝𓬞𓬟𓬠𓬡𓬢𓬣𓬤𓬥𓬦𓬧𓬨𓬩𓬪𓬫𓬬𓬭𓬮𓬯𓬰𓬱𓬲𓬳𓬴𓬵𓬶𓬷𓬸𓬹𓬺𓬻𓬼𓬽𓬾𓬿𓭀𓭁𓭂𓭃𓭄𓭅𓭆𓭇𓭈𓭉𓭊𓭋𓭌𓭍𓭎𓭏𓭐𓭑𓭒𓭓𓭔𓭕𓭖𓭗𓭘𓭙𓭚𓭛𓭜𓭝𓭞𓭟𓭠𓭡𓭢𓭣𓭤𓭥𓭦𓭧𓭨𓭩𓭪𓭫𓭬𓭭𓭮𓭯𓭰𓭱𓭲𓭳𓭴𓭵𓭶𓭷𓭸𓭹𓭺𓭻𓭼𓭽𓭾𓭿𓮀𓮁𓮂𓮃𓮄𓮅𓮆𓮇𓮈𓮉𓮊𓮋𓮌𓮍𓮎𓮏𓮐𓮑𓮒𓮓𓮔𓮕𓮖𓮗𓮘𓮙𓮚𓮛𓮜𓮝𓮞𓮟𓮠𓮡𓮢𓮣𓮤𓮥𓮦𓮧𓮨𓮩𓮪𓮫𓮬𓮭𓮮𓮯𓮰𓮱𓮲𓮳𓮴𓮵𓮶𓮷𓮸𓮹𓮺𓮻𓮼𓮽𓮾𓮿𓯀𓯁𓯂𓯃𓯄𓯅𓯆𓯇𓯈𓯉𓯊𓯋𓯌𓯍𓯎𓯏𓯐𓯑𓯒𓯓𓯔𓯕𓯖𓯗𓯘𓯙𓯚𓯛𓯜𓯝𓯞𓯟𓯠𓯡𓯢𓯣𓯤𓯥𓯦𓯧𓯨𓯩𓯪𓯫𓯬𓯭𓯮𓯯𓯰𓯱𓯲𓯳𓯴𓯵𓯶𓯷𓯸𓯹𓯺𓯻𓯼𓯽𓯾𓯿𓰀𓰁𓰂𓰃𓰄𓰅𓰆𓰇𓰈𓰉𓰊𓰋𓰌𓰍𓰎𓰏𓰐𓰑𓰒𓰓𓰔𓰕𓰖𓰗𓰘𓰙𓰚𓰛𓰜𓰝𓰞𓰟𓰠𓰡𓰢𓰣𓰤𓰥𓰦𓰧𓰨𓰩𓰪𓰫𓰬𓰭𓰮𓰯𓰰𓰱𓰲𓰳𓰴𓰵𓰶𓰷𓰸𓰹𓰺𓰻𓰼𓰽𓰾𓰿𓱀𓱁𓱂𓱃𓱄𓱅𓱆𓱇𓱈𓱉𓱊𓱋𓱌𓱍𓱎𓱏𓱐𓱑𓱒𓱓𓱔𓱕𓱖𓱗𓱘𓱙𓱚𓱛𓱜𓱝𓱞𓱟𓱠𓱡𓱢𓱣𓱤𓱥𓱦𓱧𓱨𓱩𓱪𓱫𓱬𓱭𓱮𓱯𓱰𓱱𓱲𓱳𓱴𓱵𓱶𓱷𓱸𓱹𓱺𓱻𓱼𓱽𓱾𓱿𓲀𓲁

1 palm is added to the dimension 2 cubits and 6 palms, and the result is given as 10 cubits; in l. 4, similarly, 6 palms are added to 6 cubits, 3 palms, and 2 fingers, with the resulting total of 7 cubits, 2 palms and 2 fingers; this proves conclusively that the cubit here employed is the cubit of 7 palms. The argument from the actual dimensions of the tomb must be deferred for the moment, but it may here already be noted that the length of the building cubit is usually stated at 0.525 m.¹; Mr Carter prefers to assume 0.5231 m. as its length, basing his estimate on the mean measurement of the actual cubits in the Cairo, Turin and Liverpool Museums². The difference is a minute one, and would affect the longest dimension on the *recto* of the papyrus, namely the 25 cubits here, only to the extent of four centimetres and three quarters. The total length of the tomb, given in *Y, d* as 160 cubits and 5 palms, would, with the acceptance of Mr Carter's figure, be diminished only by 30 cm.; the difference between the total measurements as given by the *Description*, by Mariette and by Mr Carter is in each case as great as this³.

The four descriptive phrases at the end of the hieratic legend here under consideration refer to the condition of the chamber either at the time when the report incorporated in the papyrus was presented, or at the prospective moment when the tomb should be terminated; the word "completed" makes the former view the more probable. The formula employed recurs with slight variations of spelling in *X, b*, *Y, b* and *Z, b*. The pseudoparticiples⁴ *sš* "drawn," *tš* "graven" and *mḥ* "filled" are, strictly speaking, more applicable to the designs upon the walls of the corridor than to the corridor itself; but Egyptian is not averse from such loose modes of speech, and it has seemed desirable to imitate this looseness in our translation. Anyone who has studied the Theban tombs at all closely will recognize the successive processes of decorating the walls that are here individually specified. First of all the "outline-draughtsman"⁵ () drew the chosen design in red outline, as a rule using the proportion squares discussed by Mr Mackay in another part of the present number of the *Journal*. Next the "sculptor" or "chisel-wielder" (  *tšw mdš*) carved the limestone into low relief⁶. Finally a painter, probably called simply  *sš*, the word which covers all the three meanings of


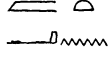
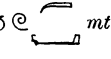
¹ Borchardt, following up a hypothesis first expressed by Professor Petrie, finds that several Old Kingdom buildings investigated by him show a round number of cubits in their dimensions. Arguing from this, he establishes the length of the cubit used in the pyramid of Neuserre as 0.52507 m., see BORCHARDT, *Grabdenkmal des Königs Ne-user-re*, p. 156.

² See *Journal of Egyptian Archaeology*, vol. III, p. 150.

³ According to the table in Lepsius' second paper (p. 3) the total given in the *Description* amounts to 71.26 m., that given by Mariette to 70.67 m.; but these authorities allow only 3.70 m. for the First Corridor. If we subtract this 3.70 m. plus the thickness of the first doorway 0.76 m. and add the 15.69 m. taken by Mr Carter as the length of the First Corridor the comparative figures are: *Description* 82.49 m.; Mariette 81.90 m.; Carter 81.58 m.

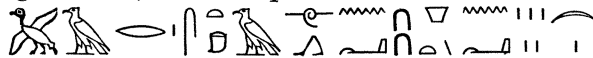
⁴ The feminine forms in *Y, b* prove that the verbs are here pseudoparticiples, and therefore equivalent to descriptive sentences, not to mere epithets.

⁵ See *Recueil de Travaux*, vol. XXIV, p. 186.

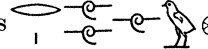
⁶ The abbreviation , which here stands for "carved," often has to be read *tš* in other contexts. *Tš* is used for 'to carve' in the Harris papyrus, see BRUGSCH, *Wörterb., Suppl.* pp. 580, 1398; otherwise one might imagine that   *mtn*, another common word for 'to carve,' was meant.

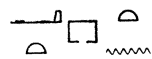


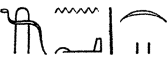
"draughtsman," "painter" and "scribe," finished the reliefs in colour¹. The word *grh*, which expresses just this act of finishing the decoration of the tomb, is written out *in extenso* in the parallel passages; it is used elsewhere in published (*e.g.* MARIETTE, *Abydos*, vol. I, Pl. 50, l. 14; PLEYTE-ROSSI, *Pap. de Turin*, Pl. CVII, l. 20) and unpublished (*e.g.* *Leipzig Ostrakon* 13; *Gardiner Ostrakon* 7) texts of finishing off pieces of architectural work or the like.

W, c. Legend inscribed within the inner lines marking the beginning of the Sarcophagus-slide (see above p. 133).

 "The slide, of 20 cubits; breadth, of 5 cubits, 1 palm."

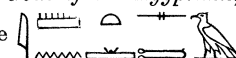
The word *r3-st3* seems to be used here only in the technical sense of "sarcophagus-slide," *i.e.* the subway cut below the level of the floor and leading down to the Burial Chamber. What is the relation of this term to the semi-geographical name Rosta'u designating the funereal region over which Osiris and Anubis presided²? This is a complex region of passages (*st3w*) and doors, mythologically conceived of as having both land-ways and water-ways³: it is, in fact, a synthetic view of the subterranean world as it might be formed by any necropolis, or as it is formed by all necropolises together.

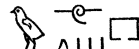
The name is written in old times  and, in view of the general character of the concept which it expresses, the element *st3w* entering into it is not improbably a real plural: the entire compound may mean "the place of passages," or something of that kind. On this theory, however, the technical term *r3-st3* here, referring to a single passage of a very specific character, may well be a different word altogether; the word *r3* is not seldom used to create compound nouns with a more restricted sense than the simplex to which it is prefixed⁴.

W, d. Inscriptions of this niche: (1)  (2)  (3) 
(4)  "This chamber, of 2 cubits; breadth, of 1 cubit, 2 palms; depth, of 1 cubit, 2 palms."

The part of the tomb described as "this *ct*" ("chamber" is not a quite satisfactory rendering, being too special) is a niche cut in the wall of the corridor *W* at no great height from the level of the floor. It is doorless, an additional reason that has enabled it to be considered as a recess in the wall of *W*, as *Z, c* is in the wall of *Z*, instead of being regarded as a lateral chamber, having, like *Z, d*, its own length, breadth and height.



¹ *Mh m drw*, see *Louvre* c 12; for *drw* see also BRUGSCH, *Wörterb.*, p. 1561, where however the word is confused with another, *trw* or *twrw* (*ib.*, *Suppl.* pp. 363-4) meaning 'blood-red' or even 'blood.'

² See CHABAS, *op. cit.*, pp. 192-4; BRUGSCH, *Dict. Géogr.*, pp. 765-6; BUDGE, *Gods of the Egyptians*, vol. I, p. 216; in the last place quoted here a doorway of Rosta'u bears the name 

 "hidden of passages."


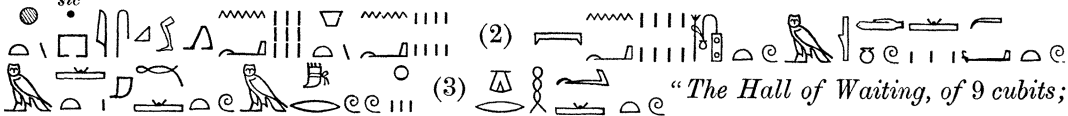

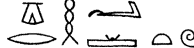
³ See LACAU, *Sarcophages*, vol. II, pp. 195, 211; SCHACK-SCHACKENBURG, *Zweivegebuch*, pp. 13-15.

⁴ Examples: *r3-w3t* "path" beside *w3t* "road"; *r3-pr* "temple" beside *pr* "house"; *r3-ꜥ* "domain(?)" "boundary," abstractly, beside *ꜥ* "hand," "region"; *r3-hd* in the *Harris* papyrus as a variant form of *pr-hd* "treasury"; *r3-ib* "stomach" beside *ib* "heart."

The fact that both *W*, *d* and *Z*, *c* were viewed in this way explains the use in both of the word  *md-t* "depth"¹ to express the distance to which these recesses are sunk beneath, or behind, the vertical side-walls of the chambers to which they belong: the Indo-European languages use the term "depth" in precisely the same way. The height of the niche, being its greatest measurement, comes first, as explained on a previous page (p. 135). The horizontal dimension at right-angles to the "depth" could not well be described otherwise than as the "breadth," the two being exactly equal; had this dimension been greater than the "depth" but less than the "height," the term  *ʒw* "length" would probably have been employed. The term *ʒw* does not occur in our papyrus; in *Z*, *c* it is avoided owing to the fact that the dimension at right-angles to the "depth" is not merely greater than the "depth," but is also greater than the "height," so that it comes first of the three and, according to custom, is left without further definition of its nature.


HALL OF WAITING, marked *X* in the plan.

X, *a*. Beside the door:  "*Its door is fastened.*"
See on *W*, *a*.

X, *b*. As name of the entire chamber *X*, along the upper part of it: (1) 
 (2)  (3)  "*The Hall of Waiting, of 9 cubits; breadth, of 8 cubits; height, of 8 cubits; being drawn with outlines, graven with the chisel, filled with colours, and completed.*"

The name "Hall of Waiting" is found not only on the *verso* of the Turin papyrus, but also on the Cairo ostrakon, where it designates the first of the three rooms which form the inner end of the tomb of Ramesses IX; this tomb differs from that of Ramesses IV in that its Sarcophagus Chamber lies at its extreme inner end, being separated by a pillared chamber from the "Hall of Waiting." Doubtless the name "Hall of Waiting" (*wsht isḳ*) was intended to designate the place where relatives, courtiers and subjects might wait before being admitted to the august presence of the Pharaoh; but whether the word *isḳ* "waiting" alludes in a still closer way to some particular phase of the burial rites is beyond our knowledge.

X, *c*. Between the doors of *X* and *Y* and within the lines indicating the Sarcophagus Slide:


 "*End of the sarcophagus-slide, of 3 cubits.*"

Mr Carter's plan proves that this measurement refers to the end of the slide projecting beyond the entrance to the Sarcophagus Chamber. The hieratic legend is therefore in the wrong place, doubtless owing to the fact that the place where it ought to be was reserved, in accordance with all precedents of Egyptian plan-drawing, for the door between *X* and *Y*.

¹ See BRUGSCH, *Wörterb.*, *Suppl.*, pp. 654-6.

corridor *Z*. Why then, it must be asked, was the term "Shabti-place" used to describe, not the two chambers *Z, d* and *Z, dd* to which alone it is strictly applicable, but rather the corridor *Z*, which deserves the name only as lying between, and hence serving to connect, those two chambers? But before attempting to answer this question let us make sure that our translation of the words *pꜣ stꜣ-ntr nty m st-šꜣbty* is beyond suspicion. It is impossible to render "*the Corridor which is in the Shabti-place*" owing to the absence of the definite article before *st-šꜣbty*. But the only alternative to this is to assign to *m* its common function of introducing the complement in a sentence expressive of identity; the literal translation will then be "*the Corridor which is as Shabti-place,*" i.e. "*the Corridor which is the Shabti-place.*" No other interpretation seems possible without having recourse to emendation, an expedient that is not likely to commend itself in dealing with a document which, if not actually an original, is at all events not many places removed from being an original.

In describing the corridor *Z* as the "Shabti-place" it is obvious that the scribe must have had some particular object in view, and that object can hardly have been any other than to make his further statements about it apply, not merely to *Z* itself, but also to the adjacent chambers *Z, d* and *Z, dd*, these being regarded as parts or extensions of *Z*. At first sight the measurements that next follow contradict this supposition, for they refer to *Z* alone, *Z, d* having, as we shall see, its own separately specified dimensions; this will also have been the case with *Z, dd*, which has perished together with the rest of the lower portion of the papyrus. Thus, however we look at the matter, the maker of the plan cannot escape the reproach of having used the term *pꜣ stꜣ-ntr* in a double sense, firstly as the corridor *Z* alone and secondly as the Shabti-place consisting of the complex *Z, Z, d* and *Z, dd*. The reason why he attributed to it the second and wider sense must evidently lie in the words "*being drawn with outlines, graven with the chisel, filled with colours and completed*"; it was his object, in dealing with the corridor *Z*, at the same time to intimate that the adjacent rooms *Z, d* and *Z, dd* were decorated and finished off in a similar manner; and this desire on his part is explained by the fact that the space available in the drawing of *Z, d* (as was doubtless also true of the lost *Z, dd*) sufficed only for the bare name of the chamber and its dimensions.

The last words of the legend here under discussion confirm the explanation given above, though at the same time they afford new proof that the scribe has involved himself in a mode of expression ambiguous almost to the point of unintelligibility. In order to understand the words  we must turn our attention to the four inverted lines of hieratic seen at the top right of the papyrus, outside and above the representation of the Fourth Corridor *W*. These four lines, to which for convenience sake we shall refer as *P*, are incomplete owing to the loss of the right-hand portion of the papyrus, but evidently contained further details about the corridor *Z* and the rooms surrounding it. The corridor *Z* itself is described in line 1 as "*the Corridor which is on the inner side of the House of Gold*" (the Sarcophagus Chamber); line 3 mentions "*the Treasury on the left,*" i.e. *Z, d*, which its own legend calls "*the Left-hand Treasury*"; line 4 is concerned with "*the second Corridor which is at the back of the House of Gold,*" clearly to be identified with *Z, e* "*the Treasury of the Innermost.*" It follows almost inevitably that line 2, consisting of the words














reproduction of the First Corridor of the tomb of Ramesses IX as given, first in M. Guilman's section, and, second, on the Cairo ostrakon.




It is curious that no details are here given as to the door leading into the Second Corridor; none of the other chambers are so briefly disposed of.

































































































































































































"Second, of.....cubits; [breadth, of.....cubits]; thickness of door-jamb, of 1 cubit and 3 palms; breadth, of 5 cubits, 1 palm, 2 digits; height of¹ door-jamb, of 7 cubits and 1 palm; lintel, of 2 cubits and 6 palms: total, 10."

The length and probably also the breadth of the Second Corridor are lost in the lacuna, which is too small to have contained the indication of the height as well, though this is given in the case of all the other passages and chambers. The omission is, however, an unimportant one, as the height of the corridor can be obtained by adding the heights of the door-jamb and lintel, both noted later on in the line.

Two technical terms that will often be met with are here encountered for the first time. That   *bnš*, sometimes written  , means "door-jamb" or "door-post" is clear from the calculation just mentioned and from various other pieces of evidence. Ch. CXXV of the *Book of the Dead* represents the   or  of the door into the Hall of the Two Truths as barring the way of the deceased (NAVILLE, *Todtenbuch*, vol. II, p. 326)². On an ostrakon of the Eighteenth Dynasty (*Ostrakon Gardiner*, 42) a number of workmen who are occupied in the construction of a building are enumerated: among them are      








"those who are busy with the door-jamb" and, immediately following,   

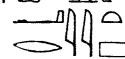


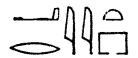
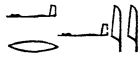
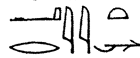
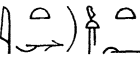

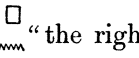
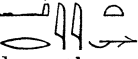
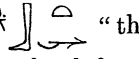
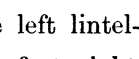

  "those who are engaged on the lintel." Mr Gunn conjectures with great plausibility that in the *d'Orbiney Papyrus* (page 16, line 9) this word ought to be restored as an emendation. The author is telling how Bata, transformed into a bull, was slaughtered by order of the king; he then continues, "Now while it (the slaughtered bull) was upon the shoulders of the men, it made a movement with its neck,        

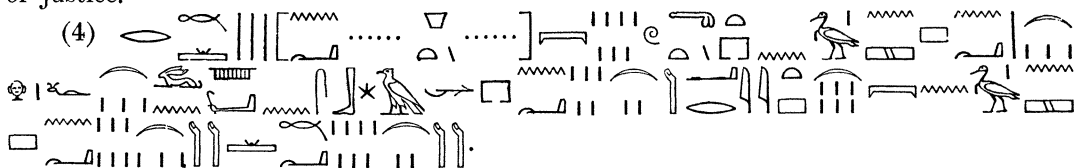
                                                                                                                                                                                   

¹ *N*, the exponent of the genitive, is omitted.

² Wrongly translated "bolt" by Brugsch (*Wörterb.*, p. 401) and Budge, "leaf" by Renouf, "threshold" by Pleyte.

the one side (read *hr t3 w't r-i*) of the great door of Pharaoh, and the other was on the other (read *t3 kti*) side. And they grew into two great Shawab-trees." If this conjecture is correct, and there can be but little question of its correctness, then clearly *bnš* must mean the "door-jambs" or "door-posts." We shall find, as we proceed, that the following particulars of the *bnš* are given: (1) its "thickness" () corresponding to what we call the "reveal" of a doorway, i.e. the internal side surface of the opening (lines 3, 4, 5, 6, 7); (2) its "height" () a measurement that needs no further explanation (lines 3, 4, 6); (3) its "face" () a very small dimension that proves to be the projection beyond the adjacent wall-surface of the near face of the door-jamb (lines 4, 5, 6); lastly, (4) the "breadth" () only in line 3, this measurement being replaced in lines 4, 5, 6, 7 by the more accurate expression "the opening of the door" () or briefly "the opening" ( or ).

The word  is more puzzling. It is presumably identical with  or  (e.g. SETHE, *Pyr.*, § 392), which has often the wide meaning of "doorway" or "portal" in religious texts, and with  (NEWBERRY, *Rekhmara*, 2, 9. 11) or  (*Zeitschrift für ägyptische Sprache*, vol. XVII [1879], p. 72) signifying "court of justice," where one is reminded of the Judges of Israel who "sat in the gate." But these meanings must be secondary and derivative, the term having a narrower technical significance both in its origin and here. In the already quoted conclusion of Ch. CXXV of the *Book of the Dead* mention is made of  (var. )  *  "the right lintel-piece of this door" and similarly of   *  "the left lintel-piece." The distinction of an *cr̥yt* on the right and another on the left at first sight suggests that the word means "door-jamb" or "door-post," but for this, as we have seen, the term is *bnš*. In our papyrus it seems plain that nothing else than the "lintel" can be intended, for the *cr̥yt* is on two occasions (line 3, 4) added to the "height of the *bnš*," evidently with the intention of indicating the total height of the doorway, or, in other words, of the chamber in which the doorway occurs. The means of reconciling these two technical uses of the term is afforded by the writing  found in the *Pyramid Texts* (e.g. ed. SETHE, § 292), whence one may conclude that the lintel is really meant, but that this was conceived of as having a right and a left half each with a small vertical portion forming strictly the upper part of the jamb. Thus the four senses ascertained for *cr̥yt* appear to be 1. "lintel-piece," "half of lintel," 2. "lintel," 3. "doorway" and 4. "court of justice."



"Third, of.....[cubits; breadth, of.....cubits]; height, <of> 7 <cubits>; thickness of door-jamb, of 1 cubit and 3 palms; its face, 3 palms; opening of door, of 5 cubits, 2 palms and 1 digit; lintel, 6 palms; height of door-jamb, of 6 cubits, 3 palms and 2 digits. Total, 7 cubits, 2 palms and 2 digits."

But for the lacuna near the beginning, this line would give a full account of all the dimensions with which the writer was concerned. Here we find for the first time "the opening of the door," i.e. the space between the right and left door-jamb, and the "face" of the door-jamb, i.e. the projection from the wall of its nearer face. See the comments on line 3.

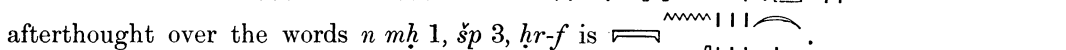
The measurements given in this line are self-contradictory, in that the sum of the height of jamb and the lintel exceeds by 2 palms and 2 digits the seven cubits given as the height of the corridor.



"Fourth, of 15 cubits; breadth, of 9 cubits; height, of 7 cubits; thickness of door-jamb, of 1 cubit, 3 palms, 1 digit; its face, 2 palms and 2 digits; opening, of 5 cubits and 1 palm; lintel, 5 palms."

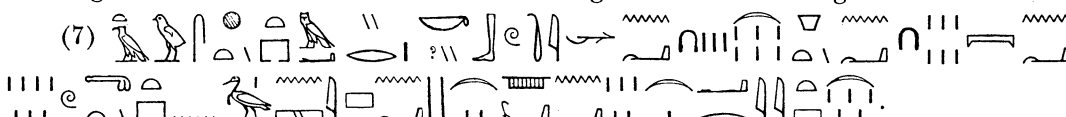
The height of the door-jamb is here omitted, but, assuming the figures to be correct, could be found by subtracting the height of the lintel, namely 5 palms, from the height of the corridor, namely 7 cubits; this would give the height of the jamb as 6 cubits and 2 palms.



Written as an afterthought over the words *n mh* 1, *šp* 3, *hr-f* is 

"The Hall of Waiting, of 8 cubits, 4 palms; breadth, of 8 cubits; height, of 7 cubits; thickness of door-jamb, of 1 cubit, 3 palms; its face, 3 palms; opening, of 5 cubits, 1 palm, 2 digits; lintel, 5 palms." The words written above the line read: "Height (scil. "of door-jamb"), of 6 cubits, 1 palm."

The sum of the heights of lintel and door-jamb is 6 cubits, 6 palms; here again there is a slight contradiction in the data, as the height of the room is given as 7 cubits.



"The Chariot-Hall, of 13 cubits and 6 palms; breadth, of 16 cubits; height, of 7 cubits; thickness of the door-jamb, of 2 cubits, 2 palms; opening, of 5 cubits, 1 palm; lintel, 5 palms."

If the verso of the papyrus really contains a description of the tomb of Ramesses IV, the name "Chariot-Hall" must clearly be an alternative designation of the "House of Gold" or Sarcophagus Chamber; this name must allude, of course, to the final resting-place of the votive chariot buried together with the Pharaoh. Chariots of the kind have been found in the tombs of Iuya and Tuthmosis IV; the latter was found in the ante-chamber leading to the Sarcophagus Chamber.

The height of the door-jamb is here once more omitted; if confidence can be placed

in the figures for the height of the room and the lintel, the jamb must have measured 6 cubits and 2 palms.

This brings us to the end of the *verso*; probably the writer intended to add the dimensions of the rooms behind the Sarcophagus Chamber, but one cause or another prevented him from accomplishing his purpose. The three measurements $\left| \left| \left| \right| \right|$ "4," $\begin{smallmatrix} \text{||||} \\ \text{|||} \end{smallmatrix}$ $\overbrace{\text{||}}^{\text{||}}$ "seven (cubits), 2 palms and 2 digits" and $\begin{smallmatrix} \text{|||} \\ \text{|||} \end{smallmatrix}$ "6 palms" are jotted down in different parts of the remainder of the page left blank.

III. THE TOMB OF RAMESSES IV AS COMPARED WITH THE TURIN PLAN.

It remains to compare the *data* of the papyrus with Mr Carter's survey of the actual tomb, of which the main results are marked upon the plan and section given in Pl. XXX¹. Some of the measurements were of too minute a kind to be marked on the Plate, and these will be found recorded below. In measuring the tomb Mr Carter has made use only of the ancient standards², reckoning the cubit at .52310 metres, the palm (= $\frac{1}{4}$ cubit) at .07472 m., and the digit (= $\frac{1}{4}$ palm = $\frac{1}{16}$ cubit) at .01868 m., see above, p. 136. The results, as will be seen, fully justify this procedure; but for the benefit of those who may wish to establish a different length for the cubit used, the equivalents in metres are added in brackets in the tabular summary below. Where the measurements of the papyrus and of the original monument agree absolutely they have been marked in black lettering (*e.g.* 5), and where the divergence is but small ordinary Roman letters are used (*e.g.* 5); otherwise the figures are in italics, like the translations (*e.g.* 5). The letters *m. m.* signify "mean measurement," *i.e.* the average of several measurements where the cutting of the tomb is irregular. The terms *right* and *left* are used from the point of view of a spectator looking from within towards the entrance of the tomb; in this the example of the Egyptian writer has been followed.

Description of the actual Tomb.

T. FIRST CORRIDOR:

length, 30c. (= 15.693 m.)

The zero-point marked in the plan is more or less arbitrary, having been determined by the probable reading 30 on the *verso* of the papyrus.—It must be noted here once for all that until the Sarcophagus Chamber (*Y*) is reached the inner doorways are clearly counted as belonging to the passage or chamber that leads up to them; see above, p. 134.

Papyrus, recto.

[cf. *Y, c.* "The First Corridor"]

Papyrus, verso.

1. 2. "The Corridor of [the Sun's Path],"

"[of 3]0 cubits";

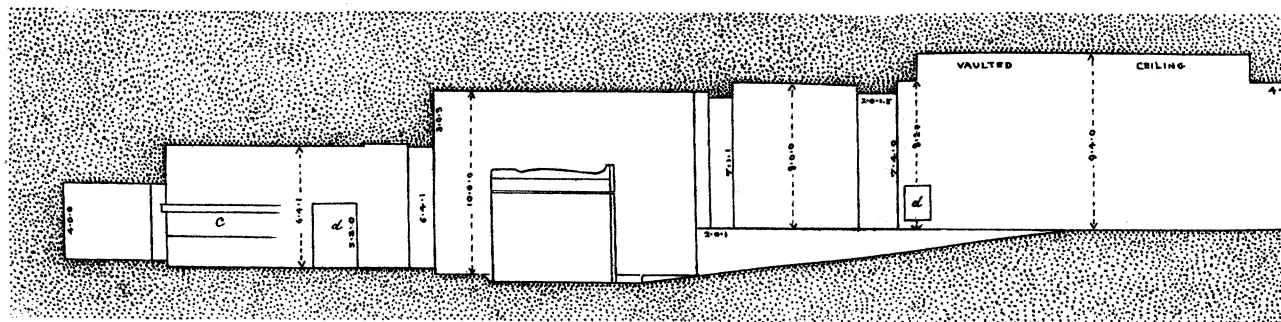
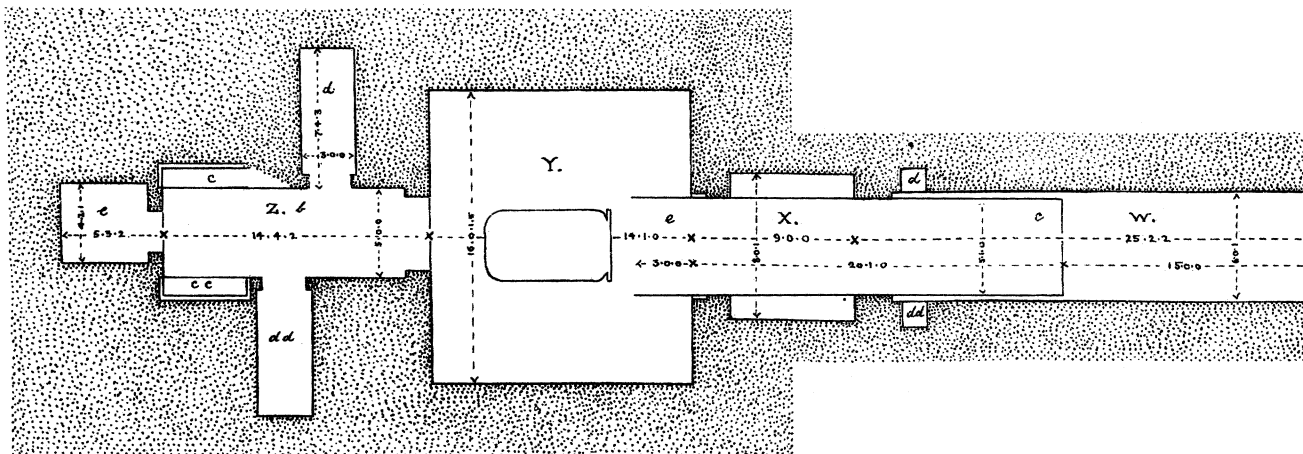
The number is damaged; the traces suit 10, 20 or 30. Of these 10 is out of the question; 20 would just reach to the point where the steps begin; 30 is, however, the more probable restoration, as the analogy of the Cairo ostrakon (see above the figure on p. 145) shows that it was sometimes at least the practice to reckon the First Corridor from a point well in front of the steps; in addition the total given in *recto Y, c* demands 30 here.

¹ Mr Carter writes that owing to a mistake in the 30 c. division on the scale which he used in drawing the plan, the two corridors *T, U* are represented slightly longer than they should be. This tiny error makes no difference to the measurements given, and merely affects the impression made by the plan upon the eye.

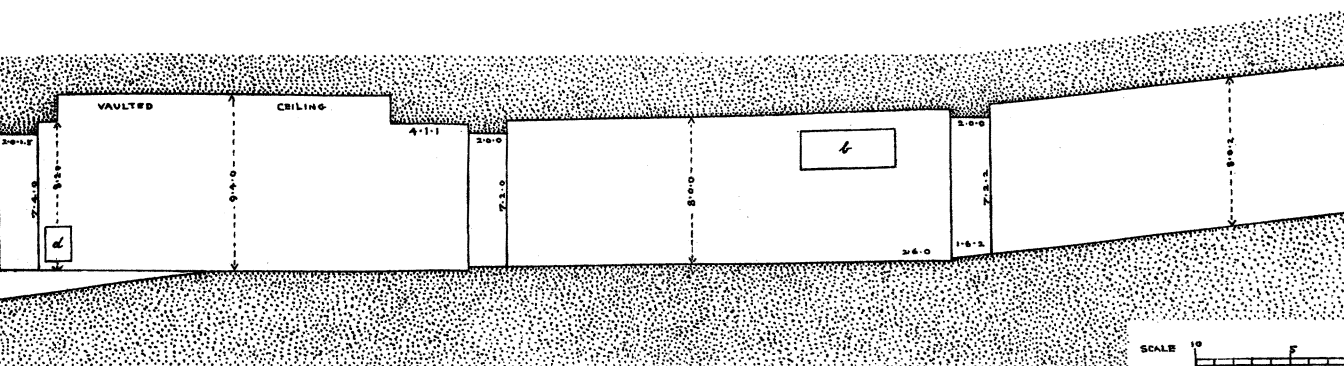
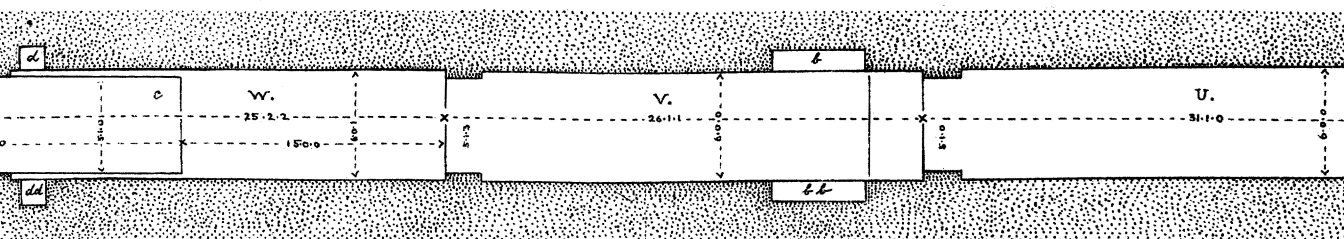
² It is understood that these were marked out in advance on the actual measures used, so that no errors in conversion have to be reckoned with.

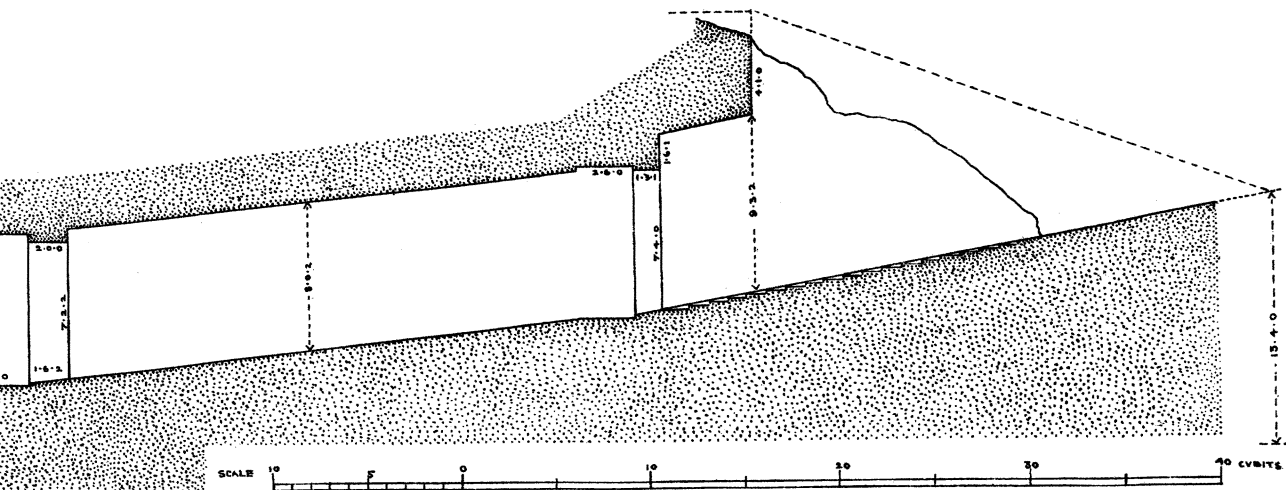
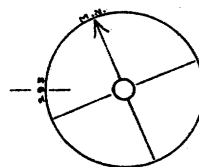
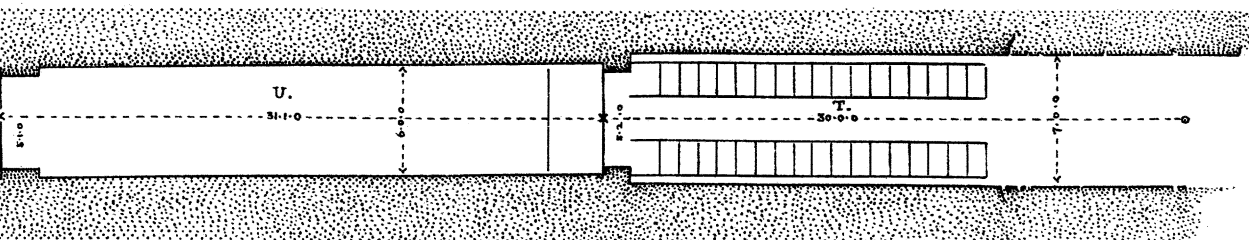
Description of the actual Tomb.	Papyrus, recto.				Papyrus, verso.
breadth, 7c. (= 3·662 m.)	"breadth, of 7 cubits";
height, [15c.] (= 7·846 m.)	"height, of 15 cubits."
This is a fair estimate of the external height of the front face of the tomb. The undercut measures 9c. 3p. 2d. (= 4·969 m.) and the face of rock above it 4c. 1p. 0d. (= 2·167 m.); the missing masonry above this may well have had a height of 1c. 2p. 2d. (= ·710 m.)					
doorway: height, 7 c. 4 p. (= 3·961 m.)	Omitted
" breadth, 5 c. 2 p. (= 2·765 m.)	"
door-jamb: reveal, 1c. 3p. 1d. (= ·766 m.)	"
" " projection (nr face), 6 p. (= ·448 m.)	"
lintel: height, 1 c. 6 p. 1 d. (= ·990 m.)	"
<i>U. SECOND CORRIDOR:</i>					
length, 31c. 1p. (= 16·291 m.)	l. 3. "Second,"
breadth, 6c. (= 3·139 m.)	lost
height, 8c. 0p. 2d. (= 4·222 m.)	"
door-jamb: reveal, 1c. 6p. 2d. (= 1·009 m.)	probably omitted, but see below.
doorway: breadth, 5c. 1p. (= 2·69 m.)	"thickness of door-jamb, of 1c. 3p.";
door-jamb: height (<i>m. m.</i>), 7 c. 2 p. 2 d. (= 3·848 m.)	"breadth, of 5c. 1p. 2d.";
lintel: height, 5p. (= 374 m.)	"height of door-jamb, of 7c. 1p.";
					"lintel, of 2c. 6p.";

The height here assigned to the lintel, and involved in the total following, is very wide of the mark. Mr Carter suggests alternative explanations: either the words "2c." ought to be cancelled as a clerical error, leaving the approximately correct dimension of 6p.; or else there is some confusion with the horizontal portion of the floor and ceiling at the *beginning* of the Second Corridor, so cut for the swing of door; this does actually measure 2c. 6p., see plan.



PLAN AND SECTION OF THE TOMB OF RAMSES IX





Description of the actual Tomb.	Papyrus, recto.				Papyrus, verso.
height of door-jamb <i>plus</i> height of lintel, equals height of corridor, 8c. 0p. 2d. (= 4·222 m.)	...	...	...	...	"total, 10." The addition is correct, and by adopting Mr Carter's first suggestion noted in reference to the last item an approximate correspondence with the actual dimensions may be obtained.
V. THIRD CORRIDOR:	...	...	...	...	l. 4. "Third,"
length, 26 c. 1 p. 1 d. (= 13·694 m.)	...	...	...	...	lost
breadth, 6c. (= 3·139 m.)	...	...	...	...	lost
height (<i>m.m.</i>), 8 c. (= 4·185 m.)	...	...	...	...	"height, 7c.";
door-jamb: reveal, 2c. (= 1·046 m.)	...	...	...	...	"thickness of door-jamb, of 1c. 3p.";
" " projection (near face), 2p. 2d. (= 1·187 m.)	...	...	...	...	"its face, 3p.";
doorway: breadth, 5c. 1p. 3d. (= 2·746 m.)	...	...	...	...	"opening of door, of 5c. 2p. 1d.";
lintel: height, 5p. (= 3·74 m.)	...	...	...	...	"lintel, 6p.";
door-jamb: height, 7 c. 2 p. (= 3·811 m.)	...	...	...	...	"height of door-jamb, of 6c. 3p. 2d.";
height of door-jamb <i>plus</i> height of lintel, equals height of corridor, 8 c. (= 4·185 m.)	...	...	...	...	"total, 7c. 2p. 2d." The addition is correct.
the sockets on the inner side of the doorway show the intention, if not the former existence, of folding doors.	W, a.	"Its door is fastened."			... ..
recesses <i>b</i> and <i>bb</i>:	...	...	...	...	not indicated
length, 5c. 1p. (= 2·69 m.)	...	...	...	...	" "
height, 2c. (= 1·046 m.)	...	...	...	...	" "
depth, 1c. (= 523 m.)	...	...	...	...	" "
W. FOURTH CORRIDOR:	W, b.	"[The] Fourth [Corridor],"			l. 5. "Fourth."
length, 25 c. 2 p. 2 d. (= 13·264 m.)	"of 25 cubits";			"of 15 cubits"; This figure might be correct if only the distance to the beginning of the Sarcophagus-slide were meant.	
breadth (<i>m.m.</i>), 6c. 0p. 1d. (= 3·157 m.)	"breadth, of 6 cubits";			"breadth, of 9 cubits";	
height, 9c. 4p. (= 5·007 m.) This is reckoned to the centre of the vaulted ceiling.	"height, of 9c. 4p.";			"height, of 7 cubits";	
Journ. of Egypt. Arch. iv.	20				

Description of the actual Tomb.	Papyrus, recto.	Papyrus, verso.
the decorations of the corridor are drawn in outline, graven, painted and finished.	"being drawn with outlines, graven with the chisel, filled with colours, and completed."	... ..
door-jamb: reveal, 2c. 0p. 1'5d. (= 1'074 m.)	... ..	"thickness of door-jamb, of 1c. 3p. 1d.";
" " projection (near face), 2p. 2d. (= 1'87 m.)	... ..	"its face, 2p. 2d.";
doorway: breadth, 5c. 1p. 3d. (= 2'746 m.)	... ..	"opening, of 5c. 1p.";
lintel: height, 5p. (= 3'74 m.)	... ..	"lintel, 5p."
door-jamb: height, 7c. 4p. (= 3'961 m.)	... ..	[height of corridor, less height of lintel, equals height of door-jamb, 6c. 2p.]
sockets for folding doors, as before.	X, a. "Its door is fastened."	... ..
W, c. SARCOPHAGUS-SLIDE: This is a kind of subway leading down through the Hall of Waiting (X) to the floor of the Sarcophagus Chamber (Y). The level of the doorways and the unfinished state of the sides show that this cutting was intended to be filled up after the completion of the burial.	W, c. "The slide,"	... ..
length, 20c. 1p. (= 10'537 m.) does not include the end of 3c. in the Sarcophagus Chamber.	"of 20 cubits";	... ..
breadth, 5c. 1p. 3d. (= 2'746 m.)	"breadth, of 5c. 1p.";	... ..
W, d. NICHE: d and dd have exactly the same dimensions.	W, d. "This chamber,"	... ..
height, 2c. (1'046 m.)	"of 2 cubits";	... ..
breadth, 1c. 2p. ('673 m.)	"breadth, of 1c. 2p.";	... ..
depth, 1c. 2p. ('673 m.)	"depth, of 1c. 2p."	... ..
X. HALL OF WAITING:	X, b. "The Hall of Waiting,"	1. 6. "The Hall of Waiting,"
length, 9c. (= 4'708 m.)	"of 9 cubits";	"of 8 cubits, 4 palms"
breadth, 8c. 0p. 1d. (= 4'203 m.)	"breadth, of 8 cubits";	"breadth, of 8 cubits";
height, 8c. (4'185 m.)	"height, of 8 cubits";	"height, of 7 cubits";
the decorations are executed as described.	"being drawn with outlines, graven with the chisel, filled with colours, and completed."	... ..
door-jamb: reveal, 1c. 1p. (= 5'98 m.) if including the rebate for door (see plan) the measurement is 2c. 0p. 1d. (= 1'065 m.)	... ..	"thickness of door-jamb, of 1c. 3p.";

Description of the actual Tomb.	Papyrus, recto.				Papyrus, verso.
door-jamb: near face, 3 p. (= .224 m.) here only marked by a vertical line dividing the texts of the Hall from the protocol of the king, which forms the decoration of the door-jamb.	...	...	...	...	"its face, 3p."
doorway: breadth, 5c. 1p. 2d. (= 2.728 m.)	...	...	...	...	"opening, of 5c. 1p. 2d.";
lintel: height, 5 p. 3 d. (= .430 m.)	...	...	...	...	"lintel, 5p."
door-jamb: height, 7c. 1p. 1d. (= 3.755 m.)	...	...	...	...	"height, 6c. 1p." There is a mistake here, since height of room (7c.), less height of lintel (5p.), gives 6c. 2p.
sockets for folding doors, as before.	Y, a. "[Its] door is fastened"				... ..
X, c. END OF THE SARCO- PHAGUS-SLIDE, 3c. (= 1.569 m.) The Sarcophagus-slide is the name given to the incline (W, c.) which begins in the middle of the Fourth Corridor. Its end is the small remaining portion of it which extends beyond the Hall of Waiting into the Sarcophagus Chamber.	X, c. "End of the Sarcophagus-slide, of 3c."				... ..
Y. SARCOPHAGUS CHAMBER:	Y, b. "The House of Gold, wherein One rests,"				l. 7. "The Chariot-Hall,"
length (m.m.), 14c. 1p. (= 7.398 m.) This measurement excludes the doorways at both ends: the outer door has already been counted to the Hall of Waiting, and the inner doorway, having according to Mariette a reveal of .62 m., would not suffice to bring the length of the Sarcophagus Chamber up to the 16c. given by the papyrus, while at the same time it would render inaccurate the length assigned to the Inner Corridor (Z). It must be admitted that the juggling with these doorways is not wholly satisfactory.	"of 16 cubits"; The mistake seems to have arisen from the inclusion here of the reveal of the door-jamb belonging to, and already counted to, the Hall of Waiting; this, together with the rebate for the door, measures 2c. 0p. 1d. (see above), and being added to the actual length of the Sarcophagus Chamber 14c. 1p., would give 16c. 1p. 1d., which is near enough to the indication of the papyrus.				"of 13c. 6p.";
breadth (m.m.), 16c. 0p. 1.5d. (= 8.398 m.)	"breadth, of 16 cubits";				"breadth, of 16 cubits";
height, 10c. (5.231 m.)	"height, of 10 cubits";				"height, of 7 cubits";

Description of the actual Tomb.	Papyrus, recto.	Papyrus, verso.			
the decorations are executed as described.	"being drawn with outlines, graven with the chisel, filled with colours, and completed";	...	...	...	...
the walls are adorned with pictures from the 'Book of the Gates,' and figure many infernal deities. It is, however, doubtful whether the words in the papyrus refer to the wall-paintings; see above p. 139.	"and being provided with the equipment of His Majesty (he lives, prospers, is in health!) on every side of it, together with the Divine Ennead which is in the <i>Dē'et</i> ." the first words refer to the furniture with which the chamber was originally filled. The last phrase may allude to the wall-paintings of the room, or else to statuettes of gods deposited there.	...	...	...	...
doorway from Sarcophagus Chamber <i>Y</i> to Passage <i>Z</i> has, according to Mr Carter, wholly different dimensions from those given in the papyrus.	... ..	{ "thickness of door-jamb, of 2c. 2p."; "opening, of 5c. 1p."; "lintel, 5p." } The doorway from <i>Y</i> to <i>Z</i> having wholly different dimensions, Mr Carter thinks that the doorway from <i>X</i> to <i>Y</i> may here be described for a second time; but even so the measurements are only approximately accurate.			
sockets for folding doors, as before.	<i>Z</i> , a "[Its] door is fastened." [For the totals given in <i>Y</i> , <i>b</i> ; <i>Y</i> , <i>c</i> , see the conclusion of this column on p. 156]	...	...	...	...
Z. INNER CORRIDOR: The places where the Shawabti-figures were kept were chambers <i>d</i> and <i>dd</i> adjoining this corridor.	<i>Z</i> , <i>b</i> . "The Corridor which is the Shabti-place," [cf. "The Corridor which is on the inner side of the House of Gold," <i>P</i> , line 1]	...	...	...	...
length, 14c. 4p. 2d. (=7.66 m.) This includes the doorway from the Sarcophagus Chamber (<i>P</i>), but not that to the End Room (<i>Z</i> , <i>e</i>).	"of 14c. 3p.";	...	...	...	...
breadth, 5c. (=2.615 m.)	"breadth, of 5c.";	...	...	...	...
height, 6c. 4p. 1d. (=3.456 m.)	"height, of 6c. 3p. 2d.";	...	...	...	...
all the chambers around <i>Z</i> , and that corridor itself, are plastered and painted, but not sculptured.	"being drawn with outlines, graven with the chisel, filled with colours, and completed,"	...	...	...	...
the chamber <i>dd</i> is plastered and painted, but not sculptured.	"that south of it as well." As pointed out in the commentary, these words refer to the chamber <i>dd</i> , where the Shawabti-figures were kept.	...	...	...	...

Description of the actual Tomb.	Papyrus, recto.	Papyrus, verso.			
Z, c. RECESS : The wall-paintings indicate that statuettes of gods were kept here. Similarly the southern recess, <i>Z, cc.</i>	<i>Z, c. "The Resting-place of the Gods,"</i>	...	...	...	...
length, 4c. 4p. (= 2·391 m.) The recess <i>c</i> being damaged, the measurements here given are those of <i>cc.</i> It should be remarked, however, that from the plan <i>c</i> would appear to be longer than <i>cc.</i>	"of 4c. 4p."; See the note opposite.	...	...	...	...
height, 1c. 5p. (= ·897 m.) This measurement includes the upper part of the recess.	"height, of 1c. 5p.";	...	...	...	...
depth, 1c. 3p. 2d. (= ·785 m.)	"depth, of 1c. 3p. 2d."	...	...	...	...
Z, d. THE LEFT-HAND CHAMBER FOR THE SHAWABTI-FIGURES :	<i>Z, d. "The Left-hand Treasury,"</i> [cf. " <i>The Treasury which is on the Left in the...of...</i> ," <i>P</i> , line 3.]	...	...	...	...
length, 7c. 4p. 3d. (= 4·017 m.)	"of 10c."; The exaggeration of the length-measurement here is paralleled by the same exaggeration in the case of the end chamber <i>Z, e.</i> Can it be that 10c. was the originally intended length of all the three chambers <i>d</i> , <i>dd</i> , and <i>e</i>?	...	...	...	...
breadth, 3c. (= 1·569 m.)	"breadth, of 3c.";	...	...	...	...
height, 3c. 3p. (= 1·793 m.)	"height, of 3c. 3p."	...	...	...	...
Z, dd. THE RIGHT-HAND CHAMBER FOR THE SHAWABTI-FIGURES :	[cf. " <i>The Place (i.e. the Shabti-place), the southern one, on the right, which...</i> ," <i>P</i> , line 2]	...	...	...	...
<i>dd</i> is plastered and painted, but not sculptured.	[see <i>Z, b</i> , end : " <i>that (i.e. the Shabti-place) south of it as well.</i> "] "as well" here means "adorned in the same manner as the corridor <i>Z</i>."	...	...	...	...
Z, e. END ROOM :	<i>Z, e. "The Treasury of the Innermost,"</i> [cf. " <i>The Second Corridor which is at the back of the House of Gold</i> ," <i>P</i> , line 4]	...	...	...	...
length, 5c. 3p. 2d. (= 2·877 m.)	"of 10 cubits"; It has been suggested above (under <i>Z, d</i>) that 10c. may have been the length originally intended for all the chambers <i>d</i> , <i>dd</i> , and <i>e</i>.	...	...	...	...

Description of the actual Tomb.	Papyrus, recto.	Papyrus, verso.
breadth, 4c. 2p. 1d. (= 2·260 m.)	"breadth, of 3c. 3p."; The modern plan shows that the masons have made an obvious mistake on the right side of this chamber. If that side were symmetrical with the left side the breadth of the chamber would be reduced to 3c. 3p., exactly the dimension given in the papyrus.	... ..
height, 4c. (= 2·092 m.)	"height, of 4c."	... ..
TOTAL LENGTHS:	Y, c. " <i>Total, beginning from the First Corridor to the House of Gold, 136c. 2p.</i>"	... ..
Length of tomb from the First Corridor (T) to the Sarcophagus Chamber (Y) inclusive, 135c. 5p. 3d. (= 71·049 m.)	[The items specified on the recto are :— Fourth Corridor 25c. Hall of Waiting 9c. Sarcophagus Chamber 16c. <hr/> 50c.]	
The following are the details :—		
First Corridor (estimated) 30c. 0p. 0d.		
Second Corridor 31c. 1p. 0d.		
Third " 26c. 1p. 1d.		
Fourth " 25c. 2p. 2d.		
Hall of Waiting 9c. 0p. 0d.		
Sarcophagus Chamber 14c. 1p. 0d.		
<hr/> 135c. 5p. 3d.	leaving 86c. 2p. to be distributed among Corridors One to Three.]	
Length of tomb from the Inner Corridor (Z) to the End Room (Z, e), 20c. 1p. (= 10·537 m.)	Y, d. " <i>Beginning from the House of Gold to the Treasury of the Innermost, 24c. 3p.</i>"	... ..
The details are :—	The House of Gold itself is excluded from the total, which otherwise agrees with the data of the recto, as follows :—	
Inner Corridor 14c. 4p. 2d.		
End Room 5c. 3p. 2d.		
<hr/> 20c. 1p. 0d.	Inner Corridor 14c. 3p. 0d. End Room 10c. 0p. 0d. <hr/> 24c. 3p. 0d.	
Total length of tomb, 135c. 5p. 3d. + 20c. 1p. 0d. = 155c. 6p. 3d. (= 81·586 m.)	"Total, 160c. 5p."	... ..
For the slightly different measurements given by the <i>Description</i> and by Mariette, see above, p. 136, footnote 3.	The sum of the two totals is here correctly given. As compared with the actual tomb the two main errors that we can detect are the exaggerated length of the End Room and the apparent inclusion of the doorway of the Hall of Waiting in the length assigned to the Sarcophagus Chamber. Leaving these two chambers altogether out of the account the remaining total length given by the papyrus is 134c. 5p. 0d. as against 136c. 2p. 1d. (= 71·310 m.) in Mr Carter's survey. This would yield 529 m. as the length of the cubit used by the surveyor who compiled the papyrus.	

The Turin plan has long suffered under the imputation of gross inaccuracy; Mr Carter's new survey goes a long way towards its rehabilitation. Of twenty-seven specific measurements—the totals are here ignored—fifteen are found by him to be absolutely accurate, eight are correct within a few digits, and in the four remaining cases, where the figures given by the papyrus are completely out, more or less plausible explanations of the errors can be given. Thus not only does the information afforded by the *recto* of the Turin papyrus appear to be entirely corroborated, but also Mr Carter's assessment of the length of the cubit obtains full justification. This highly satisfactory result conflicts strangely, however, with Lepsius' verdict in his second discussion of the Turin plan, written when the *data* of Mariette's recent investigation of the tomb lay before him. Whence this divergence? It must be admitted at once that between Mariette's figures and those of Mr Carter there is usually a difference of some centimetres, and that in a few cases the discrepancy is more serious¹. For this one of the obvious reasons is the asymmetry of the actual tomb, which is specially apparent in the Sarcophagus Chamber: there Mariette gives 8.55 m. and 8.29 m. as the respective breadths at the nearer and further ends of the room, while Mr Carter quotes 8.398 m. as a mean measurement; the height of the same room is indicated by Mariette as 5.82 m., while Mr Carter, making his measurement in a part of the room where the floor-level is different, states it as 5.23 m., *i.e.* exactly the 10 cubits named in the papyrus. In estimating Mr Carter's results it must be remembered that he had the *data* of the papyrus before him when he surveyed the tomb, and whenever it seemed that this could be fairly done he would naturally take his measurement at a point where it would be likely to agree with the papyrus; where, on the other hand, a dimension could not be accurately determined at all, owing to the asymmetry of the tomb, he gives us the mean of several measurements. To return to Lepsius' unfavourable verdict on the Turin plan, if the comparative tables printed on pp. 3—4 of his article² are carefully studied, we shall find that the inaccuracy he complains of is to a large extent to be laid at his own door, and not at that of the ancient surveyor. In one case at least, the height of the niche *W*, *c*, he quotes Mariette wrongly, giving 1.20 m. for 1.02 m. of Mariette; in another case, namely the breadth of the Hall of Waiting (*X*), he gives as Mariette's measurement a dimension not at all indicated by Mariette, and probably due to some combination of his figures that is not apparent. As regards the lengths of the various chambers, these are given piecemeal by Mariette, so that in every case the total length of a room is ascertained only by addition of the parts, the possibility of error in the resultant measurements being thus multiplied; the doorways, moreover, have proved a serious difficulty, the rebate of the door between *X* and *Y*, for example, being reckoned to *Y*, though the author of the Egyptian plan clearly intended the contrary. The worst error, however, into which Lepsius has fallen has been one of arithmetic pure and simple. His method of verification, in itself a perfectly proper one, has been to take the number of cubits and palms indicated by the papyrus for each measurement and to reduce them to metres on the assumption of a cubit of 0.450 m. and one of 0.525 m.; the alternative results are then compared with Mariette's measurements, these finally being used to find the length of the cubit that would have to be accepted if both the modern and ancient

¹ The most puzzling difference is that of the length of *W*, which Mr Carter gives as 13.264 m., while Mariette and the *Description* give respectively 14.07 m. and 14.14 m.

² *Zeitschrift für ägyptische Sprache*, vol. xxii (1884), pp. 1—5.

data were correct. By an accident that can be accounted for only by old age and failing health—his death occurred a few months later—Lepsius' calculations are vitiated by serious mistakes in every single case where the papyrus gives, not a whole number of cubits, but a number of cubits and some palms over¹. Of the nineteen measurements tested by him seven are affected by errors of arithmetic in this way, one, as we have seen, contains a misquotation of Mariette, and several others are rendered doubtful, if not incorrect, by misconceptions of various kinds. No wonder, then, that Mr Carter's results are widely at variance with those of Lepsius.

The measurements recorded on the *verso* of the papyrus prove, on comparison with Mr Carter's figures, to be just as unsatisfactory as those on the *recto* have been found to be satisfactory. Thirty-four numbers are quoted: of these only five are completely accurate, though three more may hesitatingly be included in this category; eight items are approximately correct; the remaining eighteen are definitely at fault. The facts are even worse than the above summary would seem to imply, for the cases of complete and approximative accuracy are mainly details of doorways, which are naturally less variable factors than the principal dimensions of rooms or passages. The question thus presents itself: does the *verso* refer to the tomb of Ramesses IV at all? Mr Carter, sending his report from Thebes, conjectures that the *verso* contained notes or a draft of details for the plan on the *recto*; but how comes such a draft to be found on the *verso*², which is usually the later-inscribed side of a papyrus? The miscellaneous contents of the *verso* leave little room for doubting that these are posterior to the plan on the *recto*; and the fact that they contain, among other things, the dimensions of a royal tomb suggests that the owner was an architect who picked out this papyrus for his subsequent jottings from a chestful of waste odds and ends. But the conclusion almost inevitably following from this reconstruction of events is that the architect's interest in the tomb of Ramesses IV was a thing of the past, and consequently that the jottings on the *verso* refer to some later tomb. Could that tomb be the tomb of Ramesses V? The explorations of the Valley of the Tombs of the Kings have made us acquainted with a tomb that was begun by Ramesses V and completed by Ramesses VI; this is no. 9 of Lepsius, of which no plan with exact measurements has yet been published. Some dimensions are marked in the plan of the *Description de l'Égypte*³, but not enough to test this possibility in a serious manner. Both the tomb of Ramesses V—VI and that of Ramesses IX contain four corridors followed by a Hall of Waiting, like the tomb of Ramesses IV; but, unlike the tomb of Ramesses IV, they have a pillared hall after the Hall of Waiting which might well be the Chariot-Hall named in our papyrus.

Enough has been said to show that the problem of the *verso* cannot yet be considered as satisfactorily solved. Henceforth, however, the accuracy of the plan contained on the *recto* of the papyrus may be regarded as fully vindicated.

¹ Only one example need be quoted: Mariette gives the breadth of the niche *W*, *d* as 0.69 m., the papyrus stating that the said breadth measured 1 cubit, 2 palms; hence Lepsius deduces a cubit of 0.627 m., whereas in reality the cubit works out at 5.36 m. on the right assumption that it contained 7 palms, and at 5.17 m. on the wrong assumption that there were six palms to the cubit.

² It must be noted that *verso* does not simply mean the side containing the less important writings; experience shows that the side of papyri to be first inscribed was as a rule the side where the fibres are at right angles to the *selides*.

³ *Antiquités*, vol. II, Pl. 78, Figs. 1, 2.